

Transcript—Pancreatic Cancer: A New Era in Research and Treatment

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Pancreatic Cancer Overview

Leslie Schlachter: Hello, and welcome back to The Vitals, the Mount Sinai Health System show that brings you the latest in medical news, research, and innovation. I'm your host, Leslie Schlachter, a neurosurgery PA here at the Mount Sinai Hospital. Pancreatic cancer has long been considered one of the most difficult cancers to diagnose and treat.

But pancreatic cancer is also receiving more attention now more than ever. Cases are rising, researchers are learning more about the biology of the disease and new approaches to surgery, radiation, chemotherapy, and personalized treatment that are giving patients and families more options, and more reason for hope.

So why is pancreatic cancer becoming more common? Who may be at greater risk? And who are the specialists working together to improve outcomes for our patients? Joining us to answer these questions today are three experts who bring different perspectives to the treatment of pancreatic cancer. Dr.

Deirdre Cohen, Dr. James Park, and Dr. Karen Goodman. Thank you guys all for being here.

Pancreas Basics Explained

Leslie Schlachter: So before we get into, like, the [00:01:00] nitty-gritty about cancer and what's happening and treatments and all that, let's just start with, like, the basics. We'll start with you, the surgeon. What is the pancreas? Where is it? What does it do?

James Park: The pancreas serves two, uh, functions. Uh, one is an exocrine, uh, function, uh, where it, uh, forms and, uh, d- uh, delivers, uh, digestive enzymes.

Leslie Schlachter: Mm-hmm.

James Park: Uh, it helps us digest, uh, the, the carbohydrates, proteins, and fats that we consume. Uh, the other vital, uh, function that it serves, it's an endocrine function, uh, and those are from the Islets of Langerhans, uh, glands that are in the pancreas, and that, that helps us regulate our sugar levels, uh, by, um, um, producing and, um, insulin and glucagon.

Leslie Schlachter: So this is the gland in, like, diabetics, like a Type 1 that doesn't work well.

James Park: Yes, um-

Leslie Schlachter: And where is it exactly?

James Park: It's located deep in what's called the retroperitoneum- Mm-hmm ... uh, in the upper abdomen.

Why Diagnosis Is Hard

James Park: Uh, and that might be why, uh, a part of a reason why [00:02:00] the pancreas, uh, cancer is difficult to, uh, diagnose.

Because the symptoms that arise from, uh, a gland that is so deeply situated can be somewhat vague. You can have abdominal, upper abdominal, uh, vague upper abdominal or back pain.

Leslie Schlachter: Mm-hmm.

James Park: Uh, and you can have some nausea, uh, some weight loss. These are, uh, symptoms that could be attributed to many benign entities that occur to-

Leslie Schlachter: Right

James Park: to patients, so it could be overseen.

Leslie Schlachter: I feel like I've been hearing that a lot lately, a lot of the symptoms of, you know, cancers, like we recently learned that, um- colon cancer is on the rise in younger generations, but so many people are on different medications that give them GI discomfort that they're just like, "Oh, that just must be what it is," and you might miss something like this.

Um, okay. So it's pancreatic cancer. When people hear pancreatic cancer, you know, it's like, you know, terrible, right? But it's, it's described as a silent disease. So the... You just explained that the reason why the [00:03:00] symptoms are difficult to recognize is because of its location. Um- Are, are people finding this in early stages or in later stages?

'Cause it doesn't seem like there's a screening test for this.

James Park: Yeah, unfortunately, there isn't a screening test, uh, for pancreas cancer because for a screening test to be effective, the incidence of, uh, the cancer has to be pre- quite prevalent. Uh, you also need a minimally invasive and effective, uh, test to pick up the disease.

Uh, and then it has to have a, a meaningful outcome. Uh, and pancreas cancer, unfortunately, doesn't meet the mark on all three, at least as of yet. Um, it, it's not as prevalent as breast cancer, where you can get a mammogram. Not as prevalent as colon cancer, where you can get colonoscopy, uh, screening colonoscopy.

Mm-hmm. And, uh, the tests, uh, are developing and, and we can talk more about that, um- Mm-hmm ... perhaps later about AI and modalities that are coming up to detect cancer.

How It's Detected

James Park: So

Leslie Schlachter: what does typically diagnose it? A patient comes [00:04:00] in with symptoms. Are they getting blood tests, a CAT scan? Mm-hmm. How is it usually found?

James Park: Yeah. So it depends on where the tumor is located. Uh, oftentimes the tumor is located in the head of the pancreas, and it's obstructing the bile duct, and patients become jaundiced, and they seek care. Uh, oftentimes when the pancreas cancer is located in the tail or body of the pancreas, then, uh, it can go unnoticed for quite some time.

Hmm. Uh, but you can have, uh, these vague symptoms that get worse. You lose a lot of weight, uh, you have difficulty with digestion and then... or, or new onset diabetes, which is, uh, one of the key, uh, drivers, uh, of pancreas cancer or can be a, a new symptom of pancreas cancer.

Leslie Schlachter: Mm-hmm.

James Park: Um, uh, can oftentimes lead to-

Leslie Schlachter: I'm sorry to focus so much on the surgeon, but I know, like, the patients come to the surgeon, usually do the surgery, and then they make their way to oncology and radiation oncology.

Um, so-

Karyn Goodman: Although that's changing

Leslie Schlachter: a little bit. It... Yeah. Mm-hmm. So we're gonna... Like, that's, like, typically how it works. But all right. So walk [00:05:00] us through, like, 'cause I know the-- I, I understand there's an, an increase in the incidence and prevalence of pancreas cancer. So before we get to the why, um, can we just get to, like, the basics of generally how people get to you?

'Cause they're not just calling a surgeon. It's, like, a primary care, or how are they getting to you?

James Park: Uh, there, there are many routes where pancreas, uh, cancer patients can get to us. Um, but, uh, one route is through their primary care physician. Another route is through their, uh, gastroenterologist. Mm-hmm. Um, and when patients develop these symptoms, they, and they get a scan, uh, and as a mass is identified, oftentimes that's when the referral- Okay

is made.

Leslie Schlachter: And is it one of those things, like, when you see it on a scan, it's like textbook, that's what it is, you kinda know?

James Park: Most of the time, yes. Okay. But, uh, oftentimes the scans are not performed in the, the protocol that we would like. Um, an optimal scan is a pancreas protocol computed tomography, CT, or magnetic resonance, MRI scan.

And what that means is that you d- uh, deliver a [00:06:00] certain amount of, um, contrast agent at a specific time, and then you do the scan at c- certain, uh, times, uh, while that contrast is flowing through the organs.

Leslie Schlachter: So like a dynamic protocol?

James Park: Yes. Yeah.

Leslie Schlachter: Okay.

James Park: Yeah. And oftentimes, it's just a single-phase study that, uh, doesn't quite meet the mark.

Leslie Schlachter: All right.

Rising Cases and Risk Factors

Leslie Schlachter: So let's put a pin in treatment for now. Um, but it's true. The- there's an incidence, there's an increasing incidence and prevalence of pancreatic cancer. Why, why is that? Or why do you think?

Deirdre Cohen: Yeah, I mean, I think that's a great question. So probably in the United States, there's about 60,000 new cases of pancreas cancer diagnosed each year, um, which has been rising.

And I don't think anyone really understands completely the reason why, but one of the reasons is certainly an aging population. So pancreas cancer is a disease of the aging, um, with median, uh, diagnosis in the upper 60s, um, early 70s. And other factors that play a role are, you know, lifestyle choices, so a more sedentary lifestyle, [00:07:00] increased processed foods, um, and, you know, chronic inflammation are, are some of the thoughts behind why, uh, it's rising in incidence.

Leslie Schlachter: What are you guys seeing in your own practices? Does that, that's all, that all tracks?

Karyn Goodman: Yeah, I mean, w- most of our patients are older, although we are starting to see some younger patients with pancreas cancer, which is always, you know, devastating. Um, but, you know, in addition to, uh, many of our patients, there are no obvious risk factors.

You know, we know that there are certain risk factors as, uh, Dr. Cohen mentioned. You know, al- alcohol use is a risk factor. Um, so w- but many, many of our patients are, you know, otherwise healthy, and there is no clear s- you know, risk that we can identify. Um, but yeah, the vast majority are, uh,

probably, um, in their 60s and 70s and, um, you know, have been, uh, otherwise healthy.

And then this is something, a, a new, uh, diagnosis that comes on, and we have to decide what kind of appropriate therapy. And I think you [00:08:00] were mentioning that surgery is usually upfront.

Leslie Schlachter: Yeah.

Karyn Goodman: But that, that actually is changing. So

Leslie Schlachter: in the ailment, where are we

Karyn Goodman: at? Yeah. Just radiation? That's actually changing.

Team-Based Care Model

Leslie Schlachter: So how do you guys-- So patient's diagnosed, you have a lesion. H- how do... Talk to me about how you guys all interact and how you guys decide to do what you're gonna do.

Deirdre Cohen: Yeah. So we, uh, every patient is, uh, really looked at from sort of a kinda 360, uh, perspective. And so all three of us as well as their gastroenterologist, it's kind of a, a huge team.

Nutrition, uh, social work, supportive oncology. Um, we all meet. We have, uh, weekly meetings where we discuss every newly diagnosed patient, um, because it really, uh, takes a village, uh, to care for a patient with pancreas cancer.

Leslie Schlachter: Mm-hmm. And so what would you say, like, the, like, the current paradigm is? Is it-- 'cause you said it's changing.

Deirdre Cohen: Mm-hmm.

Leslie Schlachter: So what has it been, and kinda where is it headed?

Deirdre Cohen: Yeah.

Staging and Treatment Paths

Deirdre Cohen: So I think first and foremost, the patient needs to be staged, right? So we need to understand, you know, only about 20% of [00:09:00] patients present with resectable upfront, resectable disease, meaning that, um, our surgical colleague, uh, can fully remove the, the tumor and get negative margins.

Um, the majority of patients, because, uh, uh, we don't have a screening test, uh, patients are diagnosed with either locally advanced or distant metastatic disease. Um, and so- So that

Leslie Schlachter: means, like, in the lymph nodes? Like, or spread outside of the pancreas or somewhere else in the body?

Deirdre Cohen: Somewhere else in the body or, uh, wrapped around, uh, some of the major vessels.

Okay. Um, and so not able to be surgically removed would be termed locally advanced. Okay. Um, and so depending on the stage, first and foremost, would help us, you know, determine the treatment algorithm.

Karyn Goodman: So it's really important that we have, you know, a- as, uh, Dr. Cohn mentioned, multidisciplinary assessments.

So we have our radiologists, um, participate in our, um, meetings. We have [00:10:00] pathology because sometimes, you know, the- there may be findings that our pathologists identify or even some of the, uh, biomarkers that are helpful for making decisions about, uh, treatment. But the, the type of, um, pancreatic protocol CTs is really important and that it's high quality because we do make those decisions about whether a patient is a surgical candidate or not based on, you know, the involvement of the blood vessels, and that is really, you know, best seen on these, um, high-resolution scans.

Leslie Schlachter: Mm-hmm. Okay, so 20% are candidates for resection, and we think we can get good margins. What are the other percentages?

James Park: Well, the, the... There are four buckets, if you will, to categorize patients, uh, into. About 50 to 55% of patients, uh, present with metastatic disease or overtly metastatic disease. Um, many of the other category of patients have metastatic disease that are later found, unfortunately.

Uh, about 10 to 20% are resectable, and then the middle group, the [00:11:00] 30, 35%, have either borderline resectable or locally advanced unresectable

disease. And with chemotherapy and potentially some radiation therapy, uh, those patients may become resectable in the future. And, and we are pushing the, uh, envelope now.

Mm-hmm. So there are some patients, very selected patients, that have metastatic disease, uh, that we call have oligometastatic disease, where there are a limited number of metastases. We are, uh, actually providing local therapy, such as radiation or ablation or resection or even histotripsy, uh, so that we can treat both the met-

Leslie Schlachter: Histotripsy.

James Park: Yeah.

Leslie Schlachter: You just blew by that one. Sorry. What's that?

James Park: Uh, yeah. Histo- Histotripsy is a, um, a, a local therapy that uses sound waves.

Leslie Schlachter: Mm-hmm.

James Park: Uh, but it's unlike- Uh, so it's not thermal ablation, uh, where y- microablation or, uh- It'd be

Leslie Schlachter: like lithotripsy for a stone.

James Park: Uh, it's similar to lith- But instead, ablation

similar to lithotripsy, but the frequency of the [00:12:00] sound waves are quite high. Okay. And they're delivered in spurts, um, so that it's not the usual HIFU or high intensity focused ultrasound, which uses thermal energy to treat these tumors. Uh, this is non-thermal energy. Uh, and there's, uh, currently a lot of hype/hope, uh, around this, and it's FDA approved for, uh, liver tumors, uh, currently.

Leslie Schlachter: Okay. So it's time to get excited. Now it's time.

New KRAS Drug Breakthrough

Leslie Schlachter: So pancreatic cancer, generally people hear that and they're like, "Ugh." So, like, what, right now, I guess in these terrible stages, what is the life expectancy with treatment?

Deirdre Cohen: In advanced stage?

Leslie Schlachter: Yeah.

Deirdre Cohen: So, you know, as of, uh, maybe a couple months ago, it was about a year with our standard, uh, cytotoxic chemotherapeutics, and so that's what we've been using for decades.

Um, you know, over the last 15, 20 years, we've had multi-agent chemotherapeutics. Um, but what we haven't had so much of in pancreas cancer is targeted [00:13:00] therapies. And we know that in pancreas cancer, over 90% of, uh, the tumors have a KRAS mutation, and up until very recently, this was a very difficult, um, protein to drug.

Um, but at our most recent meeting, uh, in June, what was presented and is now published, uh, in the New England Journal of Medicine is, uh, a new KRAS inhibitor, deraxin rasib, that has, uh, shown double, uh, doubling of the survival in advanced pancreas cancer. And so we are really very, very excited about this new agent, um, and many- That's, that's huge

on its heels. Is-

Leslie Schlachter: That's really, really huge.

Deirdre Cohen: Yes. This has been something we've been waiting for, I mean, my entire career, so, um-

Leslie Schlachter: So with medications like this one, they find something... 'Cause I know that, like, in cancer, a month, two months, three months- Of improve of life is great. What is this one showing?

Deirdre Cohen: So this is, uh- Like an extra year?

reducing the risk. Well, it's reducing the risk of death by 60%, but- Okay ... in [00:14:00] median survival in this study, it, it increased survival by about six months, but that was a doubling. Okay. And this is in patients who have already received initial therapy. Um, so in what we call second-line, um, treatment. So

Leslie Schlachter: gold standard first, then this.

Deirdre Cohen: Yes, but it is now being, uh, examined in the front line as well as in earlier stage resectable patients. Um, and so we hope that bringing it, uh, starting the medicine in earlier lines of therapy is gonna show much, uh, improve- even further improved outcomes.

Leslie Schlachter: All right, so outcome is good. What about side effects?

Because-

Deirdre Cohen: Yeah ...

Leslie Schlachter: there's always that discussion.

Deirdre Cohen: Of course, yes. Everything, uh, there's nothing without side effects, I tell all of my patients. So, you know, this new medicine does have significant, uh, skin toxicity, uh, which we are able to manage and mitigate. Um, but that is one of the, um, main side effects, um, as well as something called mucositis or, um, inflammation of the mucus membrane, so mouth sores, which also is [00:15:00] something we're able to mitigate.

And we're learning now, uh, more and more how to best handle these, um, side effects. Also common, although not quite as common as the mouth sores and skin rash, are diarrhea and nausea.

Leslie Schlachter: The symptoms that they come in with, they also get to have with the treatments, too.

Deirdre Cohen: That being said, I, you know, when, when a treatment works, the quality of life is improved.

You know, I always say- Yeah ... to your point, cancer does have side effects, but when the treatment's working, the, the side effects are gonna be much lessened, um- Mm-hmm ... and patients are g- are feeling better.

Leslie Schlachter: Yeah.

Radiation Options Today

Leslie Schlachter: And then is, are, is radiation given concomitantly with these medications, or is it separate? How does that work?

Karyn Goodman: So generally, we give radiation separately, but it has depended over the years on how we give the radiation, and some of that is also evolving. And, um, for many, many years, we used to give radiation with chemotherapy together but gave the radiation over a course of some almost five and a [00:16:00] half, six weeks, um, with a small dose each day.

And that was really, um, really in terms of when we use radiation, it's in the setting of situations, um, where Dr. Park mentioned that tumors are either locally advanced or borderline resectable, where surgery upfront or even after neoadjuvant, uh, chemotherapy is not necessarily a great option because we are very concerned about leaving positive margins, um, or not being able to get the tumor out at all.

So the radiation is usual- e- either used sort of as a adjunct to surgery, maybe trying to shrink the tumor down and make it easier to get the tumor out with the negative margins along those blood vessels, um, or in lieu of surgery when we don't think- Mm ... it's another type of local therapy like surgery is, um, to address the progression of disease locally because as we talked about, that can cause a lot of symptoms, too, like the jaundice and abdominal pain- Right

and pushing on the bowel or the stomach and, and causing problems with obstruction. [00:17:00] So nowadays, we've moved from using that sort of longer course of chemoradiation to doing shorter courses with a higher dose with each treatment And we call this stereotactic body radiotherapy, or SBRT, and this is just using more of the new sophisticated, uh, treatment planning software and better ability to, um, identify or, or image the tumor during treatment so we know we're hitting the right spot-

Leslie Schlachter: Right

Karyn Goodman: and limiting the dose to the normal tissues. And that we do both, again, in the setting of patients having, um, disease where we're borderline resectable as a way to shrink it down before surgery or for our locally advanced patients.

Leslie Schlachter: We have very smart viewers that know that there's lots of different types of ra- of radiation.

What kind of radiation do you give?

Karyn Goodman: So, you know, people c- sometimes come and ask about proton therapy.

Leslie Schlachter: Right.

Karyn Goodman: And so we

Leslie Schlachter: typ- That's because they advertise on it on-

Karyn Goodman: Yes ... the radio. Yes. We do have a proton unit that- Yep ... I have [00:18:00] access to, um, up at the New York Proton Center. Right now, this, you know, uh, nationally there hasn't been as much of an interest in doing protons for, um, patients with, uh, pancreatic cancer because of the bowel gas and the motion, and we can't address that.

When the patient breathes, everything moves. Um, so we have to be able to address that.

Future Tech and Patient Choices

Karyn Goodman: The, the exciting thing that I'm hoping to be able to, um, provide for my patients very soon, and we actually are, you know, hopefully in the beginning of 2027, we'll have an MRI linear accelerator, which basically is combining, uh, the use of an MRI for the image guidance of delivering the radiation with the linear accelerator all in one.

So I can actually in real time see what the tumor is doing as I'm about to deliver the radiation and even change my contours and delivery of, of, um, of the dose in response to any changes in the anatomy, like the bowel might have moved a little bit day to day or the [00:19:00] stomach, um, so that we can avoid treating some of the normal tissues.

So that's going to be available to us within the next six months.

Leslie Schlachter: I love... Did you guys notice how she got so excited and the smile? Like, she- I've never seen someone so happy about their treatment options. Yeah. Like you know you're meant to be doing this. I love my MR Linac. You're like so happy. I've only been waiting for it for six years.

Okay. So that, it sounds like essentially you guys have a tumor board. You guys discuss everything, make the decision that's best for the patients. Um, how often

do patients say, "Thanks, but no thanks. Just gonna let, you know, I don't wanna go through all of that"? Like, what percentage of time do you have those patients?

Deirdre Cohen: I would say that's quite rare. Okay. Um, but the, that's definitely always put on the table as an option, um, and, you know, risk-benefit alternatives, and that is definitely one of the, um, alternatives is to choose no treatment.

Choosing No Treatment

Deirdre Cohen: I'd say it's under 10%, probably under 5% of patients in my practice choose to have no therapy.

Leslie Schlachter: I would... Like, [00:20:00] just hearing what you guys are saying about the disease itself, especially, like, where it falls in the pancreas, like to me it's like Like in neurosurgery, if somebody has a stroke in their ICA, everything's out. If you have a distal stroke, not so bad. So you're, like, in depending on where it is in the pancreas, if you choose not to have treatment, that sounds very uncomfortable.

Blockage, like very painful.

James Park: Yeah.

Leslie Schlachter: But- That sounds terrible ...

James Park: yeah. But as you re- uh, I think you're hitting the nail on the head.

Whipple Surgery Tradeoffs

James Park: Um, if you have a pancreas head tumor, uh, the surgery that's required to remove that, um, mass is quite complicated. Mm-hmm. Uh, and while we do these cases robotically now, and patients can go home within three days, uh, and have a good recovery, um, it, it still is a major operation, and it is-

Leslie Schlachter: Right

James Park: uh, gonna be life-altering to some degree in terms of how you're gonna be eating. Uh, potentially you might become diabetic or your diabetes, existing diabetes might get worse.

Leslie Schlachter: Right.

James Park: Uh, so these are all important aspects of [00:21:00] the short-term potential complications and the long-term ramifications of the, uh, therapy that need to be discussed with the patient.

And sometimes it is, uh, because we get invested in our patients, and we have a, a robust, uh, discussion in our tumor boards of, of what this patient should have. And when we go to discuss, uh, these options with the patients, often, uh, sometimes, uh, these patients, um, may not quite understand and, and, um, may opt not to pursue therapy when, in fact, they seem like a great candidate for it.

Mm-hmm. And, uh, it, it can be frustrating sometimes, but, um, I, I think that's why we have to listen to our patients and their families, uh, members, 'cause they know their, themse- uh, the best. And, uh, they all come with, uh, not just a disease process, but they come with, uh, a, a, a different culture or, or, or, uh, lifestyle and, um, goals of care that we, we need to be keenly aware of.

Leslie Schlachter: So how do you include those changes as part of the [00:22:00] treatment? Like, 'cause, you know, we're not awesome at diet and lifestyle here. Like, a lot of us exercise and eat well, and still things happen. So how do you include diet and lifestyle changes, exercise as part of the treatment plan for your patients?

Nutrition Weight Loss Creon

Karyn Goodman: Well, I-- as part of our multidisciplinary evaluation, we often have our social worker involved.

Our, um, nutritionist is always involved, if not at that meeting, but she's always, um, i-included in, you know, further evaluation of the patient. Um, so we do really emphasize how important all of that is because a big problem with, uh, pancreas cancer is weight loss, and, you know, patients are losing weight related to sort of the increased metabolism of having the cancer, but also because they sometimes don't have appetite, or they're just not able to eat because of obstruction.

So there are a lot of reasons for them to lose weight. So it is really-

Leslie Schlachter: Is it painful to eat?

Karyn Goodman: Sometimes if they have a mass that's pushing on their stomach and they- Okay ... can't, you know, [00:23:00] eat and their stomach, you know, when it-- their stomach expands, they actually have pain. Okay. So that can happen. Um, you know, or they have diarrhea or they're-- and the other big issue is, uh, you know, as we talked about the exocrine cr- function of the, um, pancreas is that it makes an enzyme to help to break down, uh, food and especially fats.

And so oftentimes you're not absorbing your nutrients. So we try to have all of our patients started on a drug that helps to-- it's, uh, uh, basically enzyme replacement that we use to, um, help minimize the amount of, you know, um, loss of their, uh, nutrients. So that's- Mm ... you know, another thing is there are nu- our nutritionists are very involved in monitoring their, uh, use of this medication called Creon.

Leslie Schlachter: Yeah, so it sounds like you really need to think about what nutrients you're putting in your body and not waste stomach space on garbage.

Karyn Goodman: Yeah.

Leslie Schlachter: Yeah.

Prehab Walking Exercise

Leslie Schlachter: And what about exercise? Is there, like, basic stuff? Like, so for our patients, when they're going through surgery, obviously assuming they can walk, we are, like, very [00:24:00] demanding how much walking and movement they do.

Is it the same thing for you guys?

James Park: Yeah, absolutely. Uh, we have a prehabilitation, uh, process where we s- ask our patients if they... Unless they have, uh, limiting factors like a hip replacement or joint replacement that just does not allow them to walk, but even in those situations, we'd ask them to do, uh, activities that can get around that.

Uh, but I ask my patients, uh, to be walking about a mile a day coming into the operation. Um, and once they're done with the operation, on day one after operation, I expect them to walk a quarter to half a mile, and I actually walk with them.

Leslie Schlachter: Yeah,

James Park: yeah. Uh, because it really motivates a patient. It's... Once they know that the operation's been successful and everything went well, uh, it's easy to say, "Okay, I have pain, so I'm just gonna rest now."

Like- Yeah ... it's a huge burden off their shoulders. It, it's a big relief, so it's, uh, understandable that the patients wanna get some rest. But I, I tell my patients that, uh, complications [00:25:00] don't wait for you-

Leslie Schlachter: Yeah ...

James Park: to happen, so we're, we're a bit of a, a, a, a driver in, in terms of getting the patients up and walking.

When they see the white coat coming, uh- Yeah ... they respond.

Deirdre Cohen: I think also what's important to note is that, um, patients who have a better functional status to begin with, right, will have better outcomes, both surgically from radiation standpoint and from, you know, medical oncology interventions. And so we wanna maintain their functional status as much as possible.

Karyn Goodman: Yeah.

Deirdre Cohen: Um, and we also know, like, exercise is good for everything, and as tolerated of course, but we know that that allows for, you know, lower inflammation, better immune response. So, you know, there's a lot of good reason to, um, encourage, uh, continued exercise.

Leslie Schlachter: I don't think I've had a topic On any of my podcasts where the risk factors for a cancer isn't, like, what your diet is and how, like, if you're sedentary or not, and then you're gonna respond, you're gonna do better [00:26:00] with treatment.

You're mo- you're less likely to get a condition. You're gonna do better with treatment and likely live longer if you eat healthier and work out. Just like- Yes ... I don't know why it's so hard for so many people, but okay.

Deirdre Cohen: I think it's our, our society. Yeah. It's a bigger, that's a bigger discussion.

Leslie Schlachter: Yeah. Yeah.

That is, that is, that is a bigger discussion. It is hard. I mean, cell phones are a problem. Um-

James Park: But it, but it does point to that, uh, population of patients that are, uh, have a rising incidence of pancreatic cancer right now, which are the younger, uh, female population. And it hasn't been worked out specifically in terms of why that, uh, population has a higher incidence compared to younger men or other subgroups.

Um, the other groups, as Dr. Cohen mentioned earlier, uh, it is a disease of age, uh, of aging. Uh, but this population, um, at least, uh, it's not due to smoking. Mm-hmm. Uh, it may be slightly related to alcohol, uh, consumption, but more and more patie- uh, younger folks are not drinking [00:27:00] alcohol.

Leslie Schlachter: Right.

James Park: Uh, but there is a link to central obesity, and as you were pointing out, um, you know, with central obesity and metabolic syndrome, uh, I think patients are, are...

And that's specifically for, uh, female patients. So, uh, I think, uh, ha- having a, a good exercise, uh, regimen and eating healthily is vitally important. It's those things that are easily said, but more difficult to carry out. Yeah, it really

Leslie Schlachter: is.

Genetics Screening AI Hope

Leslie Schlachter: You know, it's unfortunate that there's not something like a mammogram or a colonoscopy.

What about these, there's a... I've done them myself. What about genetic testing? You know, the ones you can send, you swab the inside of your cheek or spit into a cup and you send it out. Is there a genetic marker that we can look for on these testing that puts you at a predisposition?

Deirdre Cohen: Certainly, uh, you know, about 10%, up to 10% of pancreas cancers have a genetic component that y- an, a hereditary genetic component, uh, from mom or dad.

Uh, most notably BRCA is the gene- Mm ... um, that we look for. But in every [00:28:00] single, um, patient that's newly diagnosed with pancreas cancer, we are doing genetic testing, both hereditary genetic testing and then genetic testing on the tumor for, uh, targetable, uh, mutations. Right. So there is certainly for patients who have a hereditary risk factor, those patients should be enrolled in a high-risk screening program, which we have here, um, to, um, you know, try...

Right now th- those patients are getting, um, imaging t- uh, studies as well as endoscopic ultrasounds alternating every six months. But there are other tests being looked at, uh, or being developed, including circulating tumor DNA and other blood-based tests, um, as well as AI, uh, tools to help diagnose pancreas cancer early.

Because if we can diagnose it early, we can cure it.

Leslie Schlachter: Yeah. And I guess a laparoscopic exploratory surgery is not a good screening tool.

James Park: Uh, it's a little bit invasive, but as Dr. Cohn was mentioning, there is an AI, very exciting AI [00:29:00] tool that's out, uh, out of the Mayo Clinic called RadMod. Okay. And basically it uses ra- radiomics, uh, signatures and, uh, looks at...

And they did a study looking at patients that happened to have had, uh, CT scans in the past and unfortunately developed pancreas cancer much later. Uh, even 24 months, uh, ahead of that diagnosis, um, more than 60% of those patients would have been diagnosed b- based on this AI algorithm. Oh, wow. So it's a, it's an amazing technology I think.

And I, I don't think this is gonna be unique. I think there's gonna be many more such modalities and- So

Leslie Schlachter: what does it see?

James Park: Uh, it sees, uh, I don't, I'm not a, I'm not a- I

Leslie Schlachter: w- From your understanding, what do you

James Park: think

Leslie Schlachter: it

James Park: sees? Yeah, a technical expert or anything. But, uh, yeah, it, it takes this, uh, f- apparently 14 different signatures that humans cannot detect, uh, in the CT scan.

Leslie Schlachter: Mm-hmm.

James Park: And there are these, uh, CT scan, uh, at least speaking to my colleagues, to the dual energy CTs that can take, uh, [00:30:00] you know, specific pixels of a CT scan and take the information from that individual pixel and see if there's something wrong with that, uh, the information that's contained within that pixel.

Um, and then they gather all of those signatures and, um, run it through the p-algorithm, and they can predict whether there is some distortion of the architecture in the, within the pancreas that shouldn't be there.

Leslie Schlachter: Mm-hmm.

James Park: And they validated this, uh, in the, I think, 800-plus patients that they were able to look at.

So

Leslie Schlachter: theoretically, prospectively, that could be used moving forward- Yeah ... picking up. That's amazing. I feel like what you guys have brought up, like with the technology and everything, especially your exciting MRI thing, it sounds like technology's really helping out for the treatment. Yeah. Do you think that you're gonna see any notable changes in outcome from all of this?

For patients?

Karyn Goodman: We have seen improvements. When I first started doing this, the five-year survival for [00:31:00] pancreas cancer was 6%.

And now it's about 12%, so that's all comers, but it's, you know, we've improved. We've doubled the survival. It's still not where it should be. Um, but I think all of these things... I mean, my feeling is that, you know, w- w- we've made a huge amount of progress since I started doing radiation for pancreas cancer, and being able to target it in a much more focal way, reduce side effects, give higher doses that may be more effective.

Um, you know, and I've, uh, but now, right now, we're even doing very, very focal radiation where we can actually turn the beam on and off with the patient's breathing. So I couldn't do that, you know- Wow ... 15, 16 years ago. Uh, that was really something we started, you know, back in the late 2000s, so or maybe 2010s or something like that.

So it's really something that we've changed quite a bit in terms of delivery, and I think now having new a- approaches with systemic treatments, with targeted agents, um, there are all these new ones that are, you know, sort of in development. And those things couldn't [00:32:00] have been done also, you know, without the science that's, uh, that's sort of progressed over the last, uh, 10, 15 years.

And surgery is, you know, with robotic surgery, I think it's, you know, a huge improvement. I mean, three days in the hospital after a Whipple is pretty amazing. So these are things that are gonna really improve outcomes and, um, you know, quality of life for patients.

Leslie Schlachter: Yeah. And it sounds like this new medication when you finally get your hands on it, big deal.

Deirdre Cohen: Well, we have our hands on it. Um- Oh, good. So it's not yet FDA approved. Uh, it was submitted. They filed with the FDA, but, um, we have an expanded access program, so it is available for our patients, and we are treating- What does that

Leslie Schlachter: mean, expanded access?

Deirdre Cohen: Uh, so the FDA has a early kind of a- ability allow- is allowing, uh, distribution of this drug- Mm-hmm

uh, through, um, you know, various sites who, uh, go through all of the, um, application process. So we have done that, and we are using it. But I, I don't wanna... I, I, this is a very important medicine, but as Dr. Goodman was alluding to, I [00:33:00] wanna just say this is just the, like, beginning. So the fact of the matter is we have, you know, an ability to target this mutation that is one of the drivers, right?

It's like the foot on the gas pedal in pancreas cancer. Um, but there are many other, uh, agents, um, that are being developed. Um, and we're going to, you know, get better and better, and there'll be fewer and fewer side effects. And I think in terms of being hopeful for pancreas cancer, not only do we have this,

these targeted agents, but I think being able to diagnose the disease much earlier, which we're, we're getting better and better at, and then being able to use these targeted agents, I think- Right

we really will see, you know, within the next 10 years, a massive improvement in outcomes. Like, I really do. Um, feel strongly. So I think all the technology and all the different arenas is, is- Yeah ... leading up to this. You know, earlier diagnosis and better treatments, as you said. Like, screening tools can only be good if you actually have the treatment to, to, um, you know, uh, improve outcomes, so.

You know, just finding the [00:34:00] disease without a good treatment doesn't help.

Leslie Schlachter: So a- as we wrap up, what would you say your message would be, whether it's to a patient with a new diagnosis or their family? Knowing everything that we know with all this, what, what, okay, what's your message? What do you explain to them?

Deirdre Cohen: I, I'll go ahead and say- Yeah ... what you say. I think there is hope, and I tell my patients this every day. Um, I think they need to go to a academic center where there is multidisciplinary care, where they're getting the genetic testing that they need to be getting, both hereditary and on their tumor, and where they can see, you know, um, doctors and, um, other providers, nutrition, supportive oncology, have good radiologists, pathologists, where everyone comes together so they can get the best, um, comprehensive treatment plan for- Yeah

themselves. And that's where we know, I mean, studies have been done, that outcomes are best in that environment.

Karyn Goodman: Well, I actually did have a family member with pancreas cancer recently, and she was treated here. And she's now- Wow ... four years out. Um, fortunately, sh- hers was, uh, this is my stepmother, she, uh, it [00:35:00] was picked up very early.

She had her surgery here. She had her chemotherapy afterwards. And, you know, I told her that it, the best, she had the best case scenario, that it was surgically... You know, she, she had a tumor that was in the tail, uh, in the body of the pancreas, and it was picked up sort of on a, on an ultrasound that she was having for a different reason.

Oh, wow. So it was very lucky. But I think, you know, what, um, what Dr. Cohen said is, if, if we can get this, these, you know, identify these tumors early, that gives us the best chance of cure. And so, you know, focusing on better methods of, um, prevention, screening, um, new ways of doing, um, using AI to help us, uh, uh, evaluate, whether it's, you know, imaging or also, you know, finding risk factors in the population, those are all gonna be ways to improve identification of, of these cases early, so.

And I'm, I am hopeful, and it's, it's good to know that, um, you know, also the treatments are getting better too for our patients.

Leslie Schlachter: Wow.

James Park: [00:36:00] Yeah, I mean, there's no doubt that pancreas cancer is a formidable foe. Um, but I want patients to recognize that you have a team, a, a village, as Dr. Cohen said earlier, uh, that's behind you, um, and working, uh, for the common goal.

Uh, as a surgeon, um, it's commonly said that, you know, without surgery, it's, uh, cure is not possible. Uh, but I like to s- think of it at slightly differently. Uh, the way that I, uh, think about, uh, cancer is on the spectrum. Uh, you can have, uh, cancers that you do surgery for cure. Uh, pancreas cancers, uh, even though I'd like to think that I could provide cure, I'm not naive.

And, uh, without, uh, my colleagues, care cannot be, uh, optimal care cannot be provided. So pancreas cancer currently is on the other end of the spectrum of, uh, compared to, say, a, a very small thyroid cancer in a young patient, uh, that can be resected and, uh, they're cured- Right ... essentially. [00:37:00] Um, but we're getting to a point with these, um, exciting new treatments, whether it's MR Linac or duraxin acid, and I'm, I'm very excited, uh, because, uh, it allows those patients that are currently not resectable to potentially become resectable.

Right. And potentially not even need a surgery in, in the future, and that would be a, a, a great thing that happens hopefully in my lifetime.

Access to Care Uninsured

Leslie Schlachter: So one of the things that we didn't really get into today was access to care. And one of the things that I have found from a lot of the podcasts that I've done is, like, there are people out there that don't have insurance.

So what happens when someone comes to the hospital? Let's say they come in, they're sick, they're vomiting, they're in the ER, yada, yada, yada, they're found to have this, and they're not insured. Can we still help them? Can they join a research study? Is there something we can do?

Deirdre Cohen: Well, certainly we're gonna find them help.

Um, at cer- and when they're in the hospital, they'll be treated. Um, and I know that Dr. Park has [00:38:00] operated on, um, such patients who are uninsured or underinsured. I think once they're discharged from the hospital, when their acute needs are, uh, met, um, then we will help them find care at, um, typically facil- you know, um Why am I blanking on the name?

Like HHC- Uh-huh ... uh, facilities. Um, so where, um, they can have free care essentially.

Leslie Schlachter: Right.

Deirdre Cohen: Um, where we

Leslie Schlachter: can help- Yeah, I know, like, you can, like, to our sister hospitals at, like, Elmhurst or something, but also there's, like, options for, like, emergency Medicare- Correct ... or Medicaid and things like that

Karyn Goodman: too.

That's, that's a big thing. Yes. Yeah. Social work can really be so helpful. We have Reap, we have all these great- Right ... options that are, um, you know, there to help our patients who don't have insurance, and so the social workers are key also in all of this. Right. '

Leslie Schlachter: Cause that's a big deal. I mean, if someone's at home and they know they're sick and it's getting worse, they might be really afraid 'cause they're uninsured, and that should not be a reason.

Like, 'cause we can help. We can help. Yes. Yeah.

Deirdre Cohen: Definitely.

Leslie Schlachter: [00:39:00] Yeah.

Deirdre Cohen: You know,

James Park: I saw a patient back in post-op today, uh, prior to this podcast, and it's a patient, um, you know, of Korean heritage, and, uh, he had emergency, uh, Medicaid, but it didn't cover the, the surgery. Mm-hmm. Uh, so the, uh, children got together and, and scraped up a- as much as they could, um, and unfortunately he didn't qualify for charity care.

Um, and, uh, you know, they were wondering whether they could just pay half of the, the fees. We gave them an estimate- Right ... and things of that nature. Uh, well, uh, thankfully there was a patient that we had treated a while back, uh, who was from Toronto and, and she w- I don't know why, but, uh, somehow found us and wanted to have, uh, treatment here at Mount Sinai.

And she had, uh, received-

Leslie Schlachter: Because we're the best.

James Park: Sure. Um, and, uh, uh, she had a great, uh, hospital stay. The estimate was for a seven-day hospitalization for a distal pancreatectomy, [00:40:00] splenectomy for pancreas cancer. And, uh, it w- I thought it was an, a somewhat o- outrageous estimate, but the, you know, we're taking into account potential complications that might occur after the operation- Right

and such. She did great, left on day two, and she got a significant refund of over 70%, um, and, uh, that was one mechanism of, uh, allowing patients to get their care that they need.

Leslie Schlachter: Yeah.

James Park: Uh, but as Dr. Goodman, uh, stated, we have great social care, uh, mechanisms here to- Okay ... uh, try to g- to get

Leslie Schlachter: the patients- Yeah.

That's just important for people to know that there's help. That's not a reason- Yes ... to stay home. Yes.

Karyn Goodman: Okay.

Leslie Schlachter: Ready.

Closing and Resources

Leslie Schlachter: So that's all for this episode of The Vitals. I'm your host, Leslie Schlachter. Subscribe to The Vitals and the Mount Sinai Health System's other programming on YouTube, Apple Podcasts, Spotify, or wherever you get your podcasts.

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