

Page 1 of 9

Adjuvant Therapy: The Next Step in Lung Cancer

Mitch Jelniker (00:00):

After the first line of lung cancer treatment, doctors want to make sure there's no lingering cancer. Those tiny bits of cancer that could be hiding somewhere in your body,

Diane Mulligan (00:10):

And that's where adjuvant therapy comes in. It's drug therapy that's sent throughout your body to grab and destroy those little tiny bits of cancer that might be hiding. Hi there. I'm Diane Mulligan.

Mitch Jelniker (00:23):

And I'm Mitch Jelniker. Today we're going to talk about the different kinds of adjuvant therapy designed to help prevent a recurrence of lung cancer.

Dr. Jonathan Villena-Vargas (00:33):

So, remember that adjuvant treatment, these are all treatments to prevent cancers from coming back. That doesn't mean that everyone's going to have a cancer come back. There's a good chance that you may never have a cancer come back. So it's always a discussion with your doctor.

Lisa Goldman (<u>00:52</u>):

Adjuvant therapy, that's a word that my brain stumbles over, so I always convert it in my head to adjacent or something that is alongside of the therapy, either before or after or during your primary therapy.

Diane Mulligan (01:08):

Lung cancer is a tough topic. It's a disease that affects patients, families, friends, co-workers, but first, it's a disease that affects people.

Mitch Jelniker (01:18):

Advances in lung cancer treatments over the last few years have made it possible to live with lung cancer for years after diagnosis.

Diane Mulligan (01:26):

The Hope With Answers: Living With Lung Cancer Podcast brings you stories about people living, truly living with lung cancer, cancer, the researchers dedicated to finding new breakthrough treatments and others who are working to bring hope into the lung cancer experience.

(01:47):

If you or a loved one have been living with lung cancer, you may have heard your doctor talking about adjuvant or peri-adjuvant therapy.

Mitch Jelniker (01:56):



Peri-adjuvant therapy is a type of cancer treatment that can be used in early stage lung cancer. It's a pretty broad term that's used to include both neoadjuvant therapy, which means treatment given before surgery, and adjuvant therapy, treatment given after surgery.

Diane Mulligan (02:12):

The whole idea is to reduce the chance that the cancer comes back. Let's learn more.

Mitch Jelniker (02:19):

Our first guest is Dr. Jonathan Villena-Vargas, an assistant professor of cardiothoracic surgery at NewYork-Presbyterian Hospital/Weill Cornell Medicine.

Diane Mulligan (02:28):

Dr. Villena, tell us, how do you describe adjuvant care?

Dr. Jonathan Villena-Vargas (02:33):

So, adjuvant care literally means anything after the primary, main treatment, which in my case or in most cases would mean surgery. So you do a surgery, you remove almost all the tumor. And adjuvant care is to get rid of the micrometastatic disease, the stuff that we can't see, that we cannot surgically remove with an idea that if we remove that, then I'll prevent the cancer from coming back. There's different flavors of this as you know. The treatments are things like chemotherapy and novel treatments like immunotherapy or targeted therapy,

Mitch Jelniker (03:15):

And Dr. Villena, sometimes we hear a doctor or a medical professional say neoadjuvant or just adjuvant or sometimes perioperative or peri-adjuvant. Are these different phases or different kinds of adjuvant care? How would you describe that?

Dr. Jonathan Villena-Vargas (03:29):

So, neoadjuvant is actually a slightly different strategy. So neoadjuvant is given before surgery. So the idea behind, at least originally behind neoadjuvant was that you could potentially shrink the tumor that may make a patient that is not surgically resectable, now it becomes surgically resectable. And that's kind of the idea. Now, that definition has slightly changed with the newer therapies in which with immunotherapy specifically, neoadjuvant may actually work better than adjuvant for the micrometastatic disease. So it's not so much about shrinking the tumor anymore, but it's more about kind of overall care of the patient so the disease doesn't come back after surgery.

Diane Mulligan (04:15):

Dr. Villena, before you go further on perioperative and adjuvant, could you... Surgically resectable, that means that you can cut the cancer out, is that right?

Dr. Jonathan Villena-Vargas (04:27):

That's exactly right. So, one of the things that was kind of understood or studied before I even came into practice was this idea that certain stages require certain treatments. It's usually the earlier stages that

Hope With Answers: Living With Lung Cancer Page 2 of 9



you can surgically remove because the cancer hasn't spread to these distant tissues that you really can't go and operate on the patient and start removing all these different cancers in different tissues. So, it's usually defined to something that you can remove all the cancer or all the macroscopic or visible cancer during surgery. And that's usually confined to the earlier stage disease.

Mitch Jelniker (05:08):

Very good. Who should consider adjuvant care, adjuvant therapy? And when should they consider it if they're in the midst of their lung cancer journey?

Dr. Jonathan Villena-Vargas (05:18):

So, this has a rapidly changing field. In the last probably five years, it's been about four new clinical trials that have really changed how we treat surgical patients. And this is completely different than it was for the last 30 to 40 years in which all we really had was chemotherapy and radiation. So, like most things, treatments are stage dependent, meaning certain stages need additive treatment because we know that certain stages, even though they're surgically removed, have a higher chance of coming back.

(05:56):

So, if you have the very earliest stage, like a very small, very early stage 1 cancer that's completely surgically removed, what we found is that those cancers usually don't come back. And so you don't need that extra, that extra care, that extra multi modality therapy. But as you increase in kind of the stage, so stage 2, stage 3, that is still surgically resecptible, those have a higher chance of coming back. So traditionally, we would give chemotherapy afterwards so that it would decrease the chance of it coming back.

(06:31):

Now, we have the addition of immunotherapy and we have the addition of targeted therapy. So all of these things that have now resulted have shown that the addition of chemotherapy and one of these treatment options actually decreases even further from coming back and the patients live longer. But this is all rapidly changing. It's stage driven and it's all multi specialty driven, meaning that every case is discussed with not only your surgeon but a oncologist, a radiation oncologist, as well as other people to define what is the best treatment for that specific patient.

Diane Mulligan (07:10):

So, when you're a patient and you're in there and they're talking about... the doctors are talking to you about different types of therapy, if they use the term adjuvant chemotherapy and chemotherapy, what's the difference?

Dr. Jonathan Villena-Vargas (07:24):

So, adjuvant usually means after surgery. If you are not a surgical candidate, sometimes that's all you get is chemotherapy because we found that surgery may not help a certain patient. The addition of removing tumor once it's already spread throughout the body, it doesn't really help the patient as much as just giving systemic therapy or chemotherapy. So, adjuvant would mean that you remove or you definitively treat the tumor and then you give extra chemotherapy, adjuvant or after surgery to eradicate the micrometastatic disease.



Mitch Jelniker (08:02):

Let's talk about the duration. If a lung cancer patient is a good candidate for adjuvant chemotherapy or care, for example, how long are they usually on that care path?

Dr. Jonathan Villena-Vargas (08:15):

So that again, is cancer dependent, and what I mean by that is we have a lot of new ways of measuring what type of cancers you have. So before you used to just get chemotherapy, it would be around, depending on the type of chemotherapy that the oncologist chooses for that specific patient, it would be about three to four months of treatment after surgery.

(08:43):

Now, with the addition of immunotherapy or targeted therapy, they can start with the chemo and then continue on with one even up to three years of immunotherapy or targeted therapy. Not small amount of chemo. For the most part, we still think that chemotherapy is necessary, but it's the additive other treatment options that are there for a little bit longer for about a year to three.

Diane Mulligan (09:15):

And so when we're talking about they could be on it that long, what's the success rate that we're looking at for a patient that may take on adjuvant care afterwards?

Dr. Jonathan Villena-Vargas (09:23):

So again, it's usually stage dependent, but for adjuvant care specifically, chemotherapy really added about 5% to 10% of... It increased the 5% to 10% of something we call recurrence-free survival, meaning that while 30 to 40% of patients will have metastatic recurrence, meaning that cancer comes back after surgery, it's actually reduced it by 5% to 10%. So, your chances of it not coming back are 5% to 10% better.

(10:03):

Now, with the addition of immunotherapy targeted therapy, that's dramatically increased, meaning that these therapies work better and depending on the type of cancer that you have, whether you have an EGFR mutation or another mutation, these things can be traumatic, meaning that they have four or five times better protection than they used to about 10 years ago.

Diane Mulligan (10:27):

That's great news.

Mitch Jelniker (10:29):

Yeah, that's very good. Of course, every patient needs to be their own best advocate. What should a lung cancer patient be asking their doctor about adjuvant therapy?

Dr. Jonathan Villena-Vargas (10:40):

Yeah, that's a very important question. I think the most important thing is to understand what stage you are. Once you ask your doctor, "What stage am I?" You'll know just by looking and researching yourself what the treatment algorithms are. Once you understand that, you'll understand about 80% of it. Then

Hope With Answers: Living With Lung Cancer Page 4 of 9



you ask the doctor, "Do I have any positive biomarkers?" So what that means is that if you have an EGFR mutation, if you have an ALK mutation, these are very specific algorithms for these patients, meaning that there is definitely a stage and a type of treatment for these patients.

(11:24):

If you don't have those, you ask about immunotherapy. So they say you ask, "Does the addition of immunotherapy help me in this setting?" So these are the things you want to know. You want to know the stage that you are, the type of cancer that you have, and also if you have any biomarkers that stand out that are targetable.

Diane Mulligan (11:48):

Dr. Villena, is there anything we didn't ask about adjuvant care that we should have asked that really could make a difference for the people that are listening or watching this podcast?

Dr. Jonathan Villena-Vargas (11:57):

Yes. So, remember that adjuvant treatment, these are all treatments to prevent cancers from coming back. That doesn't mean that everyone's going to have a cancer come back. There's a good chance that you may never have a cancer come back. So it's always a discussion with your doctor. What I mean by that is if you are advocating for your grandfather and your grandfather's 85 years old and your grandfather has lung cancer and your grandfather says, "I had surgery, I do not want to take any chemotherapy." That is an adequate decision. That's an okay decision to have. He may never get cancer or come back and you may prevent... Maybe he doesn't want chemotherapy, and you can prevent all those side effects. So, it's always a discussion. Remember, the patient always has a lot of power.

Diane Mulligan (12:51):

That's a great thing to talk about. Absolutely.

Mitch Jelniker (12:55):

Dr. Villena, thank you. We appreciate your time. Good information.

Dr. Jonathan Villena-Vargas (12:58):

Thank you.

Diane Mulligan (12:59):

I like Dr. Villena's explanation that adjuvant therapy targets cancer cells that primary cancer treatment may not have destroyed because no one wants their cancer to come back.

Mitch Jelniker (13:11):

Absolutely. In fact, our next guest has been living with lung cancer for more than 10 years. Lisa Goldman is a lawyer, a busy mom and wife, and an experienced lung cancer advocate. Hi, Lisa. It's good to see you. How are you doing?

Lisa Goldman (13:25):

I'm doing great. So good to see you too.



Mitch Jelniker (13:27):

Yes, thanks for being here. Hey, start us off by tell us about your lung cancer journey? Walk us through it, if you would?

Lisa Goldman (13:34):

Sure. Well, it goes way back at this point. I am very fortunate to say I've been living with stage 4 lung cancer for over 10 years now. So, I was diagnosed in 2014 with stage 4 ROS1-positive adenocarcinoma, and I've been through just two treatment therapies in all those years. So, I'm kind of unusual that way. I started out with chemotherapy and then switched to a targeted therapy, which knock on wood, I've been on for almost 10 years now.

Diane Mulligan (14:05):

Tell me a little bit about chemotherapy. What was that like?

Lisa Goldman (14:10):

It's a ton of fun. Yeah. It's not anybody's idea of a party. When I was diagnosed, it was a fire drill. I was admitted to the ICU immediately after my bronchoscopy to diagnose me. One of my lungs partially collapsed and it was a mess. And so they admitted me to the ICU and staged me right then and there, started my chemotherapy within 24 hours. So, it's a bit unusual in that way. Most patients have a bit longer to get their bearings, their head around the diagnosis, second opinions and such. But my situation was so urgent at that point that they started the chemotherapy right then and there. And this was in 2014. So, I was 10 years younger and looking a little better than I do now, and they felt comfortable being aggressive.

(15:13):

So, they started me on a triplet of cisplatin, Avastin, and Alimta, and cisplatin is really one of the roughest chemotherapy drugs I've been told. These are the only ones that I've had, so I can't speak from a personal comparison, but it's very rough on the system. It caused all kinds of complications, side effects with my heart and my kidneys and whatnot. There was a lot of nausea and everything like that. So, chemotherapy is tough.

Mitch Jelniker (15:47):

Yeah, not fun at all. And given that kind of moving in fifth gear right into the treatment plan, as you said, it was rather urgent. Was adjuvant therapy a consideration or available or an option at that juncture?

Lisa Goldman (<u>16:02</u>):

No, it wasn't something that was presented to me as an option. So, adjuvant therapy, I always... That's a word that my brain stumbles over, so I always convert it in my head to adjacent or something that is alongside of the therapy, either before or after or during your primary therapy. And that just isn't something that is... You don't normally get, at least I haven't heard of adjuvant therapy alongside concurrent with chemotherapy. It might be before or after, or chemotherapy itself can be an adjuvant therapy before or after. But that triplet that I was on was really intense, and I don't think they combine it with anything. You'll have to ask the MDs, but...



Mitch Jelniker (16:51):

It was enough. Yeah, there was enough going on there.

Lisa Goldman (<u>16:54</u>):

Right.

Diane Mulligan (16:55):

So, having had that experience and knowing what you know now about adjuvant therapy, do you think it would be something you would've considered?

Lisa Goldman (17:04):

Well, if I was a different treatment path. So, I've had friends that have had surgery and gotten adjuvant therapy before or after typically, or radiation. That certainly makes sense. I always give great deference to what the specialists recommend, obviously, and we're starting to see now. So, 2014 was sort of the very bleeding front edge of targeted therapies, and they weren't combining them with chemotherapy and things at that time. I was very lucky to even have access to be able to switch from chemotherapy to targeted therapy in 2014, much less combine them.

(17:51):

But today they are starting to do that. So I was just talking with a patient this morning actually, who isn't quite stage 4, stage 3B, and so they are shooting for a cure. Stage 4 is kind of the cutoff where they just, at least the way they presented it to me is, we're not trying to cure you. We're just trying to maintain and get you to the next treatment and kick the can down the road and make this as... What do they call that? Like a chronic condition rather than a curable one. But today they're a little bit more open minded about that.

(18:29):

So, this patient who's 3B, they started him with... Ironically, they started him with what they called a neoadjuvant, so neo just meaning beforehand, trying to sweep up as much cancer as they could with the targeted therapy. Then switched him over to what they considered the primary therapy, which was the chemotherapy to knock out what was left and then switched him back to, I guess you'd call it the adjuvant therapy again, as a maintenance back to the targeted therapy. So, these were options that weren't available or being done in 2014, but I think they're great that they're learning more and how to use and be creative with these therapies.

Mitch Jelniker (19:12):

Absolutely. Because of your experience and your wisdom on this topic, I know you enjoy mentoring and helping others facing lung cancer, particularly those who are newly diagnosed. What do you tell those folks about adjuvant therapy? How do you describe it? What do you tell them about it?

Lisa Goldman (<u>19:33</u>):

There's so much good news to share with newly diagnosed patients these days. There's so many new treatments coming out all the time and new ways the doctors are combining them and using them as adjuvant therapies or primary therapies. So, my advice is just to look at stage 4... If you're a stage 4 patient or just a cancer diagnosis is scary, no matter the stage that you've got, to have a different



mindset than we're all raised with. The C word is so scary, but there are so many treatments out there now and so many different ways to approach it and adjuvant therapies that can help extend or improve the performance of the primary treatment that you're being given. So, come to this with really an optimistic mindset and an open mind and be willing to try some new things because people are having some really good results.

Diane Mulligan (20:33):

And that's so important. Over the past 10 years, you've seen so much happen. Really in the past five years, it's been pretty amazing. How important is all this lung cancer research to someone like you who's 10 years out?

Lisa Goldman (20:49):

I mean, it brings tears to my eyes, and I don't mean to be overly dramatic, but research is everything. It's the reason I'm taking my daughter to move into her college dorm this week. When I was diagnosed, they gave me a prognosis of about nine months to live. So nobody expected me to be here for her elementary school graduation, much less her high school graduation and into college. So, research is what's saving lives. I mean, there's a lot of things I do to support my health, and I'm a big fan of art and meditation and healthy eating and exercise and all these things. But the real thing that I am grateful for every day is when I pop my targeted therapy pill. I always take a moment to be grateful for the research.

Mitch Jelniker (21:37):

That's thanks to research. Exactly. And we should point out, you were a lawyer, a fitness instructor, a non-smoker. How in the world does someone like that end up being diagnosed with lung cancer? And we hear those kinds of stories a lot. Gosh, you don't look like you have lung cancer. My, you're awful young. But this is something that can happen because as we try to tell folks, anyone with lungs can get lung cancer.

Lisa Goldman (22:03):

Absolutely. I mean, it's been my world for the last decade, so I hear and see it all day long. But I'm constantly surprised that I'm surprising people still to this day when I come out to people that haven't known me all these years and they realize that I have lung cancer or I was diagnosed with stage 4 lung cancer. So, we're still fighting the misconceptions about who is a lung cancer patient and who is susceptible to this and what can be done, how people are living with this?

Diane Mulligan (22:46):

Well, thank you so much because you're just such a great spokesperson. And just by living, you are a testament to the fact that research can make all the difference in the world and have fun taking your daughter over to college. How fun is that?

Lisa Goldman (23:02):

I hope, yeah. I hope it's fun. It's 180 square feet for three kids, including the bathroom.

Diane Mulligan (23:10):

We all have memories of that for sure. Thanks so much, Lisa. We appreciate it.

Hope With Answers: Living With Lung Cancer Page 8 of 9



Mitch Jelniker (23:15):

Thanks, Lisa. Something Lisa said really stuck out to me. She said the word cancer, just the word cancer is scary, which is true. But today there are so many treatments available and so many different ways to approach lung cancer like adjuvant therapies.

Diane Mulligan (23:30):

Exactly. Therapies that can help extend and improve the performance of the primary treatment that you're being given. So, she has good reason to be optimistic.

Mitch Jelniker (23:39):

She does indeed. If you're enjoying these Hope With Answers: Living With Lung Cancer podcasts, consider donating to help LCFA produce this resource. Because remember, this resource, this podcast is for patients or anyone else seeking answers, seeking hope, seeking access to updated treatment information, scientific investigation, and information about clinical trials.

Diane Mulligan (24:01):

Make sure to subscribe to the Hope With Answers: Living With Lung Cancer podcast. You'll be notified every time a new episode is available. So visit us online at Icfamerica.org where you can find more information about the latest in lung cancer research, new treatments, and more. You can also join the conversation with LCFA on Facebook, Twitter, and Instagram.