

Hope With Answers: Living With Lung Cancer

Give Yourself a Fighting Chance: Early Detection of Lung Cancer Re-Release

Ava (<u>00:00</u>):

Originally released in April 2020 this re-released episode of the Hope with Answers living with Lung cancer podcast explores the lifesaving impact of early detection two time Lung cancer Survivor and LCFA co-founder David Sturges shares how early testing gave him a second chance at life joining him Dr. Denise Aberle a leading thoracic radiologist who explains how low dose CT scans can detect Lung cancer in its most treatable stages and Dr. Kellie Smith who offers a look ahead at how new post surgical treatments may help reduce recurrence one

Diane Mulligan (00:38):

Of the things we love so much about working with the incredible people on the LCFA speakers is that we get to know so many statistical Outliers that means the people living with Lung cancer years even decades after diagnosis

Sarah Beatty (00:54):

And that is certain the case with our next guest he was diagnosed with Lung cancer in two thousand two quite by accident it turned out to be a very lucky catch for David and also for LCFA itself we are getting ahead of the story

Diane Mulligan (<u>01:11</u>): That's right let's hear David tell the story himself

Sarah Beatty (<u>01:15</u>): David Thank you so much for joining us today we appreciate it

David Sturges (<u>01:18</u>): Well thank you for asking me

Sarah Beatty (<u>01:21</u>):

So your story is somewhat unusual you're a fourteen Survivor is it fourteen am i wrong

David Sturges (<u>01:30</u>):

lapp to tell you that you are wrong Sarah that it is actually eighteen years since my first diagnosis you are correct i had a more recent diagnosis three or four years ago but i like to take it all the way back because it's eighteen total

Sarah Beatty (01:48):

Eighteen years that is that is absolutely astounding and i think that just shows the change en Lung cancer treatment and diagnosis and we're gonna get into that but David you have an unusual story en how your Lung cancer was first discovered what is that story

David Sturges (<u>02:09</u>):

Correct it unusual and am profoundly lucky because mi diagnosis was by luck i was being seen excuse me for a routine cardiac review and they suggested that i have a high speed cat scan which way of identifying the build up of calum what have you in the bloodstream and i had that and it came back basically the numbers were normal within normal range which i felt very good about and i set the report down it came directly to my house was not given to me by my doctor and later i thought well I'm gonna read about this more and literally there was a footnote on this report that said we've identified a module on the lower right load of the patient's Lung and this may be something that has been there and is being watched or it might be something that has not been identified before and if so we suggest that he seek, further examination which i did i called my cardiologist and he said well let's get you in and let's do a biopsy.

Diane Mulligan (03:28):

David can i interrupt you for just one second as i remember you were super healthy super Athletic and had just jumped out of a plane is that right to kill him in jar

David Sturges (03:39):

The plane came later after Surgery. Um, um, but prior to my diagnosis about a year before i had run the San Diego rock and roll marathon and maybe a year and half before. Um, Ian a friend had climbed Mount Kilimanjaro so i wasn't if i can say it i hope not the typical camel straight smoker who was wheezing and surprise surprise. Um, it was something that I never would have thought would happen to me. Even though I had been a smoker. Wow.

Diane Mulligan (04:18):

So this the diagnosis itself must have come out of the blue

David Sturges (04:25):

It was an absolute shock. Um, I remember during the course of the biopsy and the doctor said to me. David, there are live cells here and I was in a day. He and I said, "What do you mean live cells?" He said it means it's malignant, it means you have Lung cancer and um that was it. He said you're going to have to contact your cardiologist who will set you up with others but that he told me and he was done for the day which was another thing i was less hanging in limbo. Wow. This diagnosis really not knowing clearly not even having a clue well what is the treatment and in my mind's eye at that point in my life and also all of the scientific advancements and cancer treatments that i had read about for other cancers i thought well this will be kind of an easy road it'll be easy quick i will done with it found out something quite different as i went forward and was told the only treatment Therapy i had available to me was ah, Surgery that there was no other Therapy available for an individual in my situation and quite frankly that is still the situation for an early stage Lung cancer diagnosis which in many respects is a good thing too that they feel that Surgery es de approach en that case to hopefully then prevent a recurrence

Sarah Beatty (06:03):

And you were diagnosed again very early ah, a couple of years ago a handful of years ago and you call that ah, diagnosis plain dumb as well like the first one things have changed so much in between your first diagnosis and your second diagnosis can you talk about what has changed in part due to some of the work that you've done in the interim

David Sturges (<u>06:32</u>):

I think que for many Lung cancer patients maybe not me particularly many things have changed in terms of a diagnosis and the the possibility of early diagnoses which we have developed the national Lung cancer screening trial is a prime example which which identified finally and said yes high speed cat scans of the Lung will identified Lung cancers quicker than an x-ray an x-ray prior to that time was the standard of treatment so yes it was very exciting from a point of view of even though i was getting cat scans this was and everything pointed to this is the correct treatment that you should or observation that you should be having and it did 11 again identified another module at a very early stage and again the treatment with Surgery i think the other part of it too of that equation is that even though the type of Surgery i had the second time which is called baths video assisted thoracic Surgery had been around when i first had Surgery. Um, it has been so developed in the meantime the amount of time that i was in the hospital was reduced i have two small maybe one inch scars where they went in to remove that that malignancy as opposed to my first Surgery where i have a very very long very vivi scar yet where they went in and literally opened my chest and went into my ribs to access the long

Sarah Beatty (08:23):

What a difference from the first Surgery to the second and from the first diagnosis to the second

David Sturges (08:29):

Yes and what was and the time in the hospital was greatly reduced and i was home i was i was walking i've told the story i think i had been out of Surgery and home a total of maybe eight days and i was going out for a walk and my surgeon called me saying I'm checking to see how you're doing and i said I'm on my way for a walk she said perfect it's the way it should be

Diane Mulligan (08:54):

That is the way it should be one of the things that is not the way it should be es how much money goes into Lung cancer research about how much research is actually being done based on the number of lives that could be saved with Lung cancer and you are one of the Leaders en Lung cancer advocacy and you've helped create Lung cancer Foundation of America I'd love to know how that came about and what motivated you and what keeps you going

David Sturges (09:23):

What keeps me going I'll start with the ladder question first is the fact that i and everybody else at we are helping not only those individuals diagnosed with Lung cancer but their Families as well by Virtue of the phenomenal research that we are sponsoring through the Foundation and when we started that was what we recognized from our point of view that we felt was missing is an organization that was solely intent upon and directed its attentions to research and this isn't taking away from any other organization they do fabulous work but we figured we need the singular approach and we hope by way of that singular approach we would provide a phenomenal benefit to Lung cancer patients and their Families and i think that that is working and it also is helping to step in to help amp up the funding that is

necessary and called for for Lung cancer research but it i shouldn't say Holy lacking but it is very very diminished when you compare it to research monies that are applied towards other cancers and in that Vein and against that backdrop we have to continually remember and focus on the fact that Lung cancer does remain the biggest cancer death not only in the United states but in the world for both men and women

Diane Mulligan (10:56):

All started with the call coming from out of the blue is that right

David Sturges (<u>10:59</u>):

It did it was my Ben treating oncologist who was at UCLA and he was connected and one of the researchers on the NIH national Institute of health or program and or is i think an awful acronym but nonetheless it means specialized programs of research excellence and he asked myself i found out later in another tele separate telephone call to Kim noris one of the co-founders would you be interested in being a patient Advocate for our sport UCLA and quite frankly i didn't even hesitate um, i said yes and then what does it involve what does it entail and he said just about anything you want and Kim and i took it from there and met Lori Monroe who was the third co-founder of lcf a and at that point. Lori was already a patient Advocate for a Vanderbilt for so we had somewhat common background in terms of what we felt was important and necessary for the Lung cancer community though we were coming at it from slightly different approaches our first venture out was we were going to crack capital Hill and we were going to get lots of government money we had a wonderful reception and then all the times.

(<u>12:29</u>):

He went to capitol Hill but the money the funding was not there in terms of anything Greater than it was already there and we said we think we can do it better in terms of forming our own non-profit which we did and as i say with the singular focus of funding innovative Lung cancer research

Sarah Beatty (12:53):

And your work with NIH. Has continued can you tell me a little bit more about that

David Sturges (<u>12:57</u>):

Yes I've had two go rounds if you will with NIH i was on i was the the patient Advocate on the national Lung cancer screening trial so coming from my point of view of my Lung cancer having been diagnosed by way of a cat scan early on i found it particularly interesting and particularly important research and now i sit on the department of Defense Lung cancer research program the department of Defense provides funding for research for basically all cancers leukemia Breast cancer so on and so forth but i sit on the Lung cancer one not surprisingly and yet two is fascinating and interesting and particularly from the point of view it kind of mimic or mirrors what we do at LC a its singular focus is here's the research and what research is out there that's going to crack the code with respect to possibly a cure but also treatment methods may turn Lung cancer into just another illness if you will that has to be watched

Sarah Beatty (14:13):

Part of what we're doing in this podcast is talking to other Lung cancer advocates who have similar stories to yours who have gotten into advocacy on behalf of more research funding and clinical trials and how clinical trials treat patients and we're also talking to Danny aley who is a friend of also on your as well

David Sturges (<u>14:43</u>):

Yes absolutely Danny everly that invited me to be on the national Lung cancer screening trial as a a patient Advocate and that's how i became acquainted with her and she has done phenomenal research and is extremely active in terms of the early diagnosis of Lung cancer and added to that her ability to explain the disease what is out there for treatment what might happen what might not happen in terms of the illusion of treatment modalities better than anyone i know and uh Beyond being a personal friend i mean anybody any advocate's friend from the point of view of of what she can give to an Advocate in terms of Lung cancer research and treatment for Lung cancer

Diane Mulligan (<u>15:38</u>): We should probably say it's doctor Debbie

David Sturges (<u>15:42</u>): Yes yes

Diane Mulligan (<u>15:44</u>):

And she is probably one of the leading Lung cancer researchers um and a radiologist at UCLA UCLA yeah so i just wanted to make sure cuz we all know so well we we get Jenny it is

David Sturges (<u>16:02</u>):

A certain amount of

Diane Mulligan (<u>16:05</u>):

Absolutely well David thank you so much for sharing your story it's just really astounding to be talking to someone who has eighteen years out from diagnosis and who has done as much as you have to bring attention to Lung cancer and the need for funding and the need for research

David Sturges (<u>16:26</u>):

If i could say one more thing in terms of becoming a Lung cancer Advocate i thought about it many times and i can repeat for you how it happened but i can very honestly say and have said it to many people even if i had never been diagnosed with Lung cancer if someone had come to me let's say Kim noris you Guys and said this is the background this is what's happening this is what isn't happening this is why we need help i think i can honestly say i would jumped into the fray i thinks important

Diane Mulligan (<u>17:05</u>):

Important so much about you and we're just honored to have you i think all of us count ourselves lucky there are people like you there who see in and it and do everything possible to make life better so thank you for that

David Sturges (<u>17:20</u>):

Thank you very much and thank you for what the two of you are doing well

Diane Mulligan (<u>17:24</u>):

We're having fun doing we are we have a good time

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David Sturges (<u>17:27</u>): That's the important part

Diane Mulligan (<u>17:34</u>):

We hope you're enjoying the LCFA hope with Answers living with Lung cancer podcast it's produced as part of our non-profit mission the support and expansion of Lung cancer research accomplished by raising funds that serve to increase the public's awareness of Lung cancer status as the leading cause of cancer death inform and educate Lung cancer patients in their Lung cancer Journey and fund innovative Lung cancer research have had the pleasure of working with dr. Denise Aberle a number of times and she's a great friend of I cfas and a tireless Advocate for early diagnosis and screening for Lung cancer she's a radiologist specializing in Lung cancer at ucla's cancer center and she was on the team that developed the guidelines for who should be screened

Sarah Beatty (18:27):

And this is something i love about the hope with Answers living with Lung cancer podcast we are talking with some of the top Doctors around the country and sometimes around the world and it's amazing to get this kind of incredible access oftentimes like in this interview with doctor we're grabbing fifteen minutes with them in between their dozens of appointments and meetings and a really really busy day so you're gonna hear doctor very busy computer pinging with messages and lots of activities and it really Gives you the sense of how hard these Doctors are working in the fight against Lung cancer oh

Diane Mulligan (<u>19:06</u>):

And by the way dr. Aberly references a set of guidelines for who should be screened for Lung cancer you can find those guidelines in el easy to use Calculator on I sea face website in the about Lung cancer tab where it says detects a lotre gonna go to website about Lung cancer and then hit detection we to that tab in the story of let's jump right into the Conversation with dr. Ale who has been specializing in Lung cancer for about Twenty five years

Dr. Denise Aberle (<u>19:40</u>):

I was intimately involved with the one major screening trial that looked at the benefits of lodos computed tomography or lodos CT screening for patients who were at risk of Lung cancer based on age or smoking. Ah, after the results of that trial were published I've been involved in the national Scene to try to help with the implementation of screening to help with guidelines for how to interpret screens and for developing the database into which screening exams are submitted to the centers for medicaid and Medicare services en order to be considered for reimbursement

Sarah Beatty (20:29):

So from your Perspective one of the things we just talked about at the LC patient Advocate meeting last weekend with how quickly and how hugely things have changed in the treatment diagnosis and treatment of of Lung cancer really in the past maybe five to seven years given your Perspective how have things changed in the time that you've been specializing in Lung cancer

Dr. Denise Aberle (21:00):

So Lung cancer is really a continuum i tend to work on the early side meaning the early detection of Lung cancer um and so also the later side in patients who have established Lung cancer or may have advanced

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disease and there've really been major advances across the continuum of Lung cancer in the area of early detection and by that i mean patients who are typically presymptomatic they la they do not have signs or symptoms of Lung cancer but their cancers may be caught early we like to think of early detection as also early stage. But that es not always the case but en the early stages of Lung cancer probably the major benefit that we've seen over the last couple of decades is the fact that we now have a screening test for early Lung cancer detection and that is low Dose computed demography a couple of trials one in the United states and one in Europe have both confirmed that the use of CT for screening reduces the mortality of Lung cancer by at least Twenty percent and in some instances much more than that so that means that we have the potential to identify a cancer before someone becomes symptomatic and to cure with treated with intent to cure that's a major advance because it means that more patients are being diagnosed in the earlier stages when they have the potential for longterm cure on the advanced side en patients who have established Lung cancer and may have metastatic disease o more significant regional disease in the chest we also now have a variety of therapies that can be used to prolonge life and many of these are what we call targeted therapies they are therapies that were developed to address one particular gene mutation that a patient may have and they allow that tumor to be held in check there are times when resistance may develop and the Therapy no longer Works but we have additional therapies that may be effectives en las therapies are not what we call the Classical cytotoxic therapies meaning that they kill all cells they really directed to the tumor although they have side Effects the side Effects are generally less than en patients who are receiving traditional chemotherapy and then finally the newest thing in our inventory to manage Lung cancer our immunotherapies en which we are able to give drugs that stimulate the Immune system to recognize a Lung cancer as foreign and to attack it and i think across this continuum seeing substantial improvements in the way we diagnose treat and cure Lung cancer

Sarah Beatty (24:29):

So i wanna step back just a little bit when you were talking about CT scans to diagnose early stage Lung cancer this is something that David talked about he was his Lung cancer was found on a scan for a totally unrelated thing it was a cardiac issue so when you are talking about asymptomatic people people who are showing no symptoms how would they access a CT scan i mean is it really by luck

Dr. Denise Aberle (25:00):

Interesting that you suggest that prior to screening most of the Lung cancers that were detected in patients who had no signs or symptoms were in fact incidental findings with the scan having been acquired for another Purpose. Ah, now that we have low radiation do CT screening we're able now to identify eligible patients who are at higher risk for Lung cancer based on age and smoking history and to offer them screening which currently in the United states if eligible must cover the cost of the screening exam as does Medicare

Sarah Beatty (25:44):

So that is for folks who fall into those screening guidelines it sounds like still and I'm thinking of the number of members that we have on the speakers who did not fit that criteria and were not diagnosed until stage three or stage four what can you talk about the benefit to being diagnosed earlier you mentioned couple minutes ago that early diagnosis in early stage are not the same thing

Dr. Denise Aberle (26:15):

Correct we would love to think that it could be even in the setting of screening not all cancers that are detected even in patients who lack signs or symptoms will be early stage they may be more advanced stage what screening does is shift the stage across the population to earlier stages that are more amenable to cure unfortunately not everyone who undergo screening and is diagnosed with a Lung cancer will have an early stage Lung cancer

Sarah Beatty (26:49):

En early stage you're talking about um a couple of different options i mean we you've mentioned targeted therapies for specific biomarker and immunotherapy which we're gonna get into in the next part of this podcast one particular study that is happening but en earlier stages there's also the possibility of a Surgical approach isn't that correct

Dr. Denise Aberle (27:13):

Absolutely en fact most immunotherapies and targeted therapies are applied to patients with established cancer that may not be locally resectable there are clinical trials looking at the benefits particularly of immunotherapy prior to Surgical resection but far away en patients with early stage Lung cancer what that really means is that the tumor is localized hopefully to the primary lesion within the Lung and les even to regional lymph nodes so it's very localized disease those patients are optimally managed with Surgical resection there are other ways to locally manage early stage Lung cancer you can do radiotherapy in which you target the primary mass with radiation Therapy there are also ways in which you can ablate the lesion percutaneously using heat or thermal methods for example radiofrequency ablation microwave ablation and cryoablation and there are different times or different Reasons why you might use one over the other those are usually done by an interventional thoractic radiologist and the an Instrument is passed from the skin into the lesion to a blade the lesion with radiation Therapy you typically are just receiving very high Dose radiation to a very restrict always en the local cancers can be managed o treated por potential cure

Sarah Beatty (29:04):

Sure en just to make sure that i'm understanding everything and ablation is where you are actually destroying that tumor tissue is that correct

Dr. Denise Aberle (29:15):

Probe goes into the mas and heat or cold applied which destroys the cells leaves the residual mas but destroys the cancer cells themselves.

Sarah Beatty (29:29):

Okay, ok, so this is kind of a question from the Perspective of someone who is asymptomatic. What should someone who's worried about the possibility of having Lung cancer see? What should they go talk to their doctor about? If they're eligible for a CT scan how do you bring that up with doctor

Dr. Denise Aberle (29:51):

So first of all as a matter of health policy in the United states right now the there are well-defined eligibility criteria for screening you must be between the ages of fifty five to seventy seven or up to eighty if you have private insurance you must have had a minimum moderate degree o extent of smoking and if you are a former smoker you must have quit within fifteen years those criteria theres nothing

magic about them they were the criteria that were originally used in the United states national lu screening trial that i wasted with those criteria were designed based on kind of epidemiology to identify those people at highest risk of Lung cancer but i must say they were never intended to be implemented for public policy decisions right now because the nlst was at that time the only trial those eligibility criteria for this randomized clinical trial were adopted as public policy the United states Preventive services taskforce is currently reevaluating the data to determine whether or not different decisions about eligibility should be entertained but right now you really can only get a Lung cancer screen that is covered by your insurance or Medicare if you satisfy those eligibility criteria so what about the patients who have a lesser Intensity of smoking or who guit more than fifteen years ago those patients are technically not eligible and depending upon their insurance they may or may not be reimbursed for their screen which means that they would have to pay out of pocket that's a decision that that person must make what about the never smoker we've looked at never smokers and the possibility of screening them and it's technically really not feasible from eh from a national economic Perspective moreover it would subject people to although low Dose still typically unnecessary radiation which we don't wanna do so we don't have a good answer for individuals who are never smokers but we do know a of other risk factors that influence one's risk of Lung cancer one of them is family history if you have a family history of Lung cancer particularly in your immediate family also in your more extended family you are at higher risk of developing Lung cancer if you are exposed to certain non carcinogens for example braon which es a natural radio gas that occurs within the earth the ground some areas of the United states have more rate on than other areas but known moderate rate on exposure will make you predisposed to Lung cancer if you have underlying chronic obstructive Lung disease that is an additional risk factor and it would appear that some racial groups are at higher risk even if they smoke less and those are in particular african-american men so in individuals who are afraid that they may be at higher risk of Lung cancer because of risk factors other than smoking they can address this with their primary care physician or their pulmonologist and make a decision about whether or not screening is right for them understanding that they may have to pay for that screening exam

Sarah Beatty (<u>34:11</u>):

And this is really part of the story that we hear from so many folks on the LCFA speakers bureau es there's a certain amount of self advocacy that you need to be prepared to you know embar on if you are looking for a diagnosis and you know i count on two hands the number of stories of misdiagnosis that we have with en particular young non-smoking female Lung cancer patients really everyone so i think it's important for patients to hear the message that sometimes you just have to be dogged in your pursuit of the accurate diagnosis

Dr. Denise Aberle (<u>34:54</u>):

Absolutely absolutely you are exactly right and i think that the incidents of Lung cancer in never smokers in people who have never smoked a cigarette is increasing for Reasons that we don't understand you know we don't know if it's pollution or something that is you know that is within the atmosphere but definitely this is on the rise over the last ten years or so and we desperately need ways to identify, los patients who are at risk even absent tobacco smoke

Sarah Beatty (35:31):

Mm-hmm and you have talked before about some new potential ways to diagnose Lung cancer i understand no all of these are sort of being used currently but what are some of the things coming down

the pike hopefully potential new tools like a Liquid biopsy which is just a bit of blood you know like a blood test you know what are the things coming the pike hopefully that will make diagnosis easier

Dr. Denise Aberle (<u>36:01</u>):

Well so currently Liquid biopsy is a reality its more of a reality in the established or advanced Lung cancer setting and specifically patients who have a single driver gene mutation which means the mutation that is driving that Lung cancer to continue to proliferate will undergo targeted therapies at some point we have to begin looking for additional mutations that may cause the tumor to become resistant to the targeted therapies so even now we're doing blood tests in patients who are put on certain targeted therapies to look for muta additional mutations that we now recognize lead to resistance and we do that through a blood test and it is relatively accurate we're heading in the same direction in the early setting of Lung cancer and we use a variety of different specimens they can be blood specimens they can be soliva they can be sputum you cough up from the lungs they can even be brushings from inside the nost so a variety of different readily accessible biospecimens are being analyzed and we're looking at patterns of gene mutations so there are a number of different ways to look for evidence of risk factors molecularly that would cause Lung cancer very few of them have made it to the commercial stage at this point i think that's just a matter of time and i think 11 that happens then we're talking about a new era en being able to identify smokers or non-smokers who may have or be at risk as Lung cancer

Sarah Beatty (<u>38:00</u>):

That would really be an amazing step forward so now it sounds like if i'm hearing you correctly that these additional diagnosis methods would take us out of the closed loop of who's eligible for screening and into something that's more accessible for more patients potentially identifying folks who do not fit that those high-risk factors in identifying them earlier

Dr. Denise Aberle (38:33):

Ya i think that's one of the hopes. Um, i think we have a ways to go yet but that's certainly a direction that we would like to to go i think it's just important to know that there are ways to detect Lung cancer when it's localized in its earlier stages that if you are a current or former smoker you should discuss that with your primary care physician if you are a never smoker but you've had family members or certain exposures to respiratory carcinogens that might be worth a Conversation with your primary care physician also and also to understand that even though not all screen detected Lung cancers are early stage they early stage will dominate screen detected Lung cancers and even patients with established or advanced Lung cancers can now look forward to treatments that were not even here fifteen years ago

Sarah Beatty (<u>39:34</u>):

What an amazing set of information you've given us i really really appreciate it doctor i really appreciate the time that you've taken today i know your schedule is just absolutely shockful from dusted Donn so we appreciate the time

Dr. Denise Aberle (39:48):

My pleasure

Diane Mulligan (39:49):

Isn't that an amazing thing to hear the idea that we could be looking at completely new, much more advanced ways to diagnose and treat Lung cancer in the near future.

Sarah Beatty (40:00):

Oh my it's one of the Reasons we are so excited to work on hope with Answers living with Lung cancer podcast and coming up next one of our favorite people

Diane Mulligan (40:11):

Really lcf young investigator Kelly Smith talks about research she's working on that may make surgio ple treating Lung cancer easier and more effective what more with hope with Answers visit us online I. Cf America do org where you can find out more information about the latest in Lung cancer research new treatments and more you can also join the Conversation with LLC on Facebook Twitter and Instagram you might not know this but Lung cancer Foundation of America's mission is to fund early stage research the kind of smaller scale Studies that can lead to much larger Grants because Lung cancer is really underfunded

Sarah Beatty (<u>41:02</u>):

Incredibly underfunded especially the federal level that's really the front line of Lung cancer research getting enough promising data to go after bigger Grants for very expensive trials clinical trials and larger Studies that can lead to better treatments or diagnosis

Diane Mulligan (41:20):

One person on the front lines of research is dr. Kelly Smith of Johns Hopkins I. Young investigator she just wrapped up a Grant looks at the benefits of a particular type of chemotherapy before

Dr. Kellie Smith (<u>41:34</u>):

In the first lcf a Grant that i fortunate enough to be awarded we were already planning to do a clinical trial ofo a juvant pd one en respect and

Sarah Beatty (41:47):

I wonder I'm so sorry to interrupt you but i wonder if you could help us walk through all of those really quickly

Dr. Kellie Smith (41:55):

So a treatment is when there's a Therapy given traditionally chemotherapy prior to patients undergoing so this in patients who are eligible for an earlier stage not metastatic. Ah traditionally it's chemotherapy they're given and the goal of that is to shrink the tumor prior to them going to Surgery so it makes the job of getting all the tumor out a little bit easier. Ah and the idea behind switching up that treatment regimen is that immunotherapy specifically anti pd one. Has shown impressive results in patients with metastatic disease so we thought that giving immunotherapy in the new adjuvant setting might not only help to reduce to might also help prevent relapse in patients and as you know fifty seventy percent of patients who undergo Surgery for Lung cancer will eventually relapse and die of the disease so we really wanna prevent that relapse. Ah, so we perform the first ever clinical trial adjuvant checkpoint block cap enactable non-small cell Lung cancer and ahm aside from the impres clinical findings there was a forty

five major patholog response rate which is amazing ahm aside from that we do a scientific cursen we obtained from patients clinical to received several papers published based on work.

(<u>43:43</u>):

Ah, so the first paper was published in the new england journal of Medicine and that was the clinical trial ah and what we saw that for the first time we able to identify anti tumor responses in patients with early stage disease so these were patients who were treated so we you know the treatment might have had an effect on our ability to detects had never been done before no one had ever identified en the peripheral blood of patients who such an early stage of disease and the lcf funded this work the next really cool finding and we published this at the end of that only do you have treatment did in these patients it actually mobilized t-cells from the blood into the tumor so wasn't necessarily acting on cells that were already in the tumor causing a systemic resulted en des migration of cells into the tumor the third really exciting thing was that en because of the LLC funded work i was able to generate enough data to submit my first one application and that goes to study sección in about six weeks so hopefully the LC work will lead to five million of funding you know

Diane Mulligan (45:17):

Conversation with Kelly is just how important lfa is young investigator funding is to getting that all important first chunk of data that can lead to Grants it may lead to an additional one million in funding for even Grant investigator Grants are really the Foundation of everything el CFA does

Sarah Beatty (45:42):

Yes and it's also true that Kelly and i get a little bit techy in our Conversations we

Diane Mulligan (45:48):

Talked about this we

Sarah Beatty (45:51):

These people these Conversations so much so her Grant establ that immunotherapy a Medicine that helps the body's own Defense system fight the cancer was effective against the Lung cancer tumor it helped shrink the tumor to make it easier remove surgically and this is incredible it showed some evidence of preventing a recurrence of Lung cancer this is work that is happening right now today and it will hopefully impact the lives of so many people living with Lung cancer in the future

Diane Mulligan (46:34):

So tun and will be right back through the Generosity of don like you is able to fund cutting edge research that will lead to new treatments and protocols with the goal of Greater survival rates for Lung cancer patients everywhere we can't do it without you considering making a donation by visiting LCFAmerica.org and clicking on the donate button today thanks to our guest cofounder David Sturges who shared his experience of living with Lung cancer thoracic radiologist dr. Denny aley and If young investigator doctor Kellie Smith

Sarah Beatty (<u>47:17</u>): Thanks for listening join us next time

Diane Mulligan (<u>47:21</u>):

The Hope of Answers living with Lung cancer podcast is produced by the Lung Cancer Foundation of America find more information online at If America org thanks for listening.