

Advances in the Treatment of Liver Cancer

Webcast

November 18, 2008

Christopher Garrett, M.D.

Ralph Katz

Please remember the opinions expressed on Patient Power are not necessarily the views of M. D. Anderson Cancer Center, its medical staff or Patient Power. Our discussions are not a substitute for seeking medical advice or care from your own doctor. That's how you'll get care that's most appropriate for you.

Ralph's Story

Andrew Schorr:

Hello and thank you for joining us once again on Patient Power. I am Andrew Schorr broadcasting live from Seattle, Washington, way up in the corner of the country. But I was one of those people who came from afar to go to M. D. Anderson for my leukemia treatment, and I'm happy to be a 12-year leukemia survivor, so I know what it's like to go through treatment, but I also know how full a life it can be when things work out. And I wish that for you.

Tonight we are going to talk about advances in the treatment of liver cancer, and we are going to understand that a lot is happening now. Sometimes people have heard about a variety of new chemotherapy agents and different ways of delivering them. There are ways of investigational and even targeted radiation. We will mention that along the way. And then sometimes along with all that there is transplant for some, but not everybody is a candidate for that so we are going to understand the whole enchilada, if you will, of what it means to have liver cancer and what are the treatments. And we will talk about it when it's limited to the liver but also when it's spread from the liver, and we will be meeting a hematologist/oncologist from M. D. Anderson who specializes in that in just a minute.

But first let's meet somebody who has lived through all this, and that's Ralph Katz. Ralph is 67 years old. He is a petrochemical engineer in Houston, and he has been for many years. He is married. He has got four children and four grandchildren. And for quite a while they noticed that he had high liver enzymes, and so about three years ago, three and a half years ago, he was seeing his doctor, and his doctor said, you know, we should do a CT scan and just check because we are always keeping an eye on that liver. And, Ralph, I understand the doctor looked at that CT, and what did he say?

Ralph:

He said he found a spot that was about .8 centimeters in diameter, and he didn't like the look of it. And he wanted to go ahead and get it checked, so we did a biopsy. And after the biopsy they gave me the unfortunate news, hepatocellular carcinoma, and that I should go to M. D. Anderson.

Andrew Schorr:

Which you did, and that begins your journey where you had a variety of different treatments. At one point I know you were on a clinical trial. And at one point rather than just that one spot, as they thought, there were more. First I understand they thought, well, we can cut that one spot out, but then they did more imaging and then there came other news. What was that?

Ralph:

What happened was I went through a clinical trial and then that wasn't working, so they said that we were going to try and do a resection. The liver regenerates in about, I think they said in about eight months my liver would be whole again. But as they went in, they put a camera in first, and they took a look and pulled the camera out and basically didn't go any further and told me that I had stage IV cirrhosis, nonalcoholic steatotic hepatitis I think it was called, and the doctor will correct me if I am wrong on that, and that there was no way they could operate on the liver at all. I wouldn't survive. Then they suggested that I go for a liver transplant.

Now, at that time, and that may still be true, I know that M. D. Anderson did not do transplants, and I still think they don't. Because normally for liver cancer, at least it was then, a transplant is not a recommended procedure. So I went to another hospital, and if you want I can mention which name that is.

Andrew Schorr:

Sure. That was Memorial Hermann, but I know they work together. And actually, as we will learn, I understand there is a transplant surgeon that works closely really in collaboration with the M. D. Anderson team, and all that of course is to see what approach is right for each individual patient's situation. In your case though, you were able to have a transplant. How has it worked out?

Ralph:

It's worked out fine. I have never been healthier.

Andrew Schorr:

Wow. And we are three years out, right?

Ralph:

July 15th, last July 15th was three years, so we are almost three and a half years out.

Causes and Risk Factors

Andrew Schorr:

Wow. Congratulations. Now, we should mention that you said that you had this form of liver cancer, NASH is the acronym. We are going to learn more about that. The story of course is that liver cancer is on the increase. How come? Well, some people may be aware that there are viral conditions that affect the liver, hepatitis B

particularly overseas and in Asia. Hepatitis C in the United States. Many people don't even know they have it, and it may have started decades ago. And not only does it cause scarring of the liver, but then the other shoe that's starting to drop for more and more people is liver cancer. Then of course we have always had the problems that could lead to liver cancer like extreme alcohol consumption. And then also America's obesity problem is having an effect on the liver too, as for some people fat cells affect the liver and can over an extended time lead to liver cancer, too.

We are going to be back with more of your story as we continue, Ralph. We are glad that things are going so well, but I know you go for continued checkups at M. D. Anderson with a specialist there, hematologist/oncologist who specializes in the treatment of liver cancer and GI oncology. That's Dr. Christopher Garrett who joins us from M. D. Anderson this evening.

Dr. Garrett, I talked about this increase in primary liver cancer. Did I get the all the causes right because it's certainly of concern?

Dr. Garrett:

Yes. You got most of them, and as you pointed out we are kind of seeing it takes a long time before the effects of viral disease on the liver leads to cancer, 20 to 30 years as you pointed out, so we are starting to see that increase. And in fact our data shows that liver cancer is one of the fastest increasing cancers in the United States in terms of incidence as well as causing death. And some of that is due to what you mentioned. Some of that is due to just people coming from Asia where they have high incidence, and Africa, and moving here, but it is becoming an increasing medical problem in this country.

Candidates for Resection

Andrew Schorr:

Of course the medical community is trying to address it and come up with as many different effective treatments as you can. We will talk in a minute about new approaches with chemotherapy, new drugs that are approved or others that are in late stage research, different ways of delivering them. Now, Ralph had a number of different approaches. Maybe we could touch on them before the transplant. One of them was something called radio frequency ablation, and I know that's done. And he also mentioned this term resection. So help us understand. So resection is where the surgeon is trying to cut out the cancer cells that are observed. Who is a candidate for resection because it turned out he wasn't?

Dr. Garrett:

Well, one of the major problems with liver cancer is that the majority of people have underlying liver damage. So you're developing a cancer in an organ that's already damaged, and as you know we only have one liver. So the problem with liver resection is you also remove some of the liver with the tumor, and you have to make sure not to remove so much liver tissue that the patient would not have

enough to survive, you know, that they continue to have enough healthy liver left behind to operate. So in some people their underlying liver damage is such that to remove healthy liver tissue would put them into liver failure.

Now, as you mentioned, radio frequency ablation, we stick a probe into the liver and coagulate or burn it, and that has the effect of sparing liver tissue and to more closely target the tumor itself.

Andrew Schorr:

So the first question for someone diagnosed with liver cancer is how many spots, if you will, are there? Can they be cut out or ablated or is that not an option?

Dr. Garrett:

Yes. That's exactly right. And sometimes we have to use very fine imaging techniques to try to pick up because some of these spots may be very small. About 30 percent of liver cancers are multiple or more than one spot. And the second thing is we have to see how well the liver is functioning. Sometimes we go ahead and biopsy the normal liver, not the cancer, just to see how much damage there has been to the liver from hepatitis or different other causes, and how much reserve the patient has, how much liver they can afford to lose before running into trouble.

Andrew Schorr:

Now, we have mentioned hepatitis a few times. Help us understand what the thinking is on how or why cancer develops so much later. What's happening with damage to the liver that leads to cancer and causes it?

Dr. Garrett:

Well, we are not entirely sure. We do know people who have hepatitis C must have cirrhosis or damage to the liver, and cirrhosis is a form of fibrosis, fibrous tissue being laid down in the liver. And as a consequence of this a whole number of factors are produced abnormal by the liver, and there is genetic changes that occur in the liver that can be transformative. What all these steps are have not been very clearly worked out. Interestingly, in hepatitis B you don't have to have cirrhosis. There is something about the virus that can directly transform liver cells into cancer without going through a cirrhosis stage, and for that reason it can occur sooner and in some cases can have a more aggressive disease course.

Andrew Schorr:

Now, we mentioned in Ralph's case, so he wasn't a drinker, and he didn't have hepatitis C, so this NASH acronym, tell us about that and also any connection with obesity.

Dr. Garrett:

Well, there are situations where people can deposit fat in the liver. Some patients, they get a fatty liver and it doesn't cause a problem. Certain patients it will cause inflammation of the liver, and it can cause eventually something called

steatohepatitis, which is like a brisk inflammatory reaction to the fat deposition, and that can subsequently over time lead to fibrosis and cirrhosis and in some patients can lead to liver failure. Now, it's very, you know, some people can have a lot of deposition of fat in the liver, and it doesn't cause a problem, and other patients it can. We are not too sure why it is that in some people it causes a greater insult to the liver than others.

Transplant

Andrew Schorr:

Now, in the case of Ralph, he had various treatments, and then he had cirrhosis as well and so he had this fibrotic tissue, but he was able after just a matter of weeks to have a transplant. And he was mentioning the transplant had previously not been an option for people with cancer but it has worked out for him. So where are we now with transplant being part of the treatment landscape, if you will?

Dr. Garrett:

Well, in about the late, the mid to late 1990s they found that if you had a small amount of tumor and then that was transplanted, those patients did as well as patients who were transplanted just for their underlying cirrhosis. And in some cases patients were transplanted, they didn't even know they had a liver cancer. They only found out afterwards when they examined the removed liver. So if patients have a small amount of one single lesion that's five centimeters or less, or if they have three lesions but none of them is larger than three centimeters, these people can have as good an outcome five years later than patients that are transplanted without cancer who are transplanted for liver failure.

Andrew Schorr:

We are going to talk a lot more to understand all these modalities. We have got a bunch more to talk about as we talk about chemotherapy, new drugs, and also when liver cancer has metastasized or spread from the liver. It's all our program on advances in the treatment of liver cancer. We will be back with more from Dr. Christopher Garrett, a specialist in all this from M. D. Anderson and also his patient who is doing really well, Ralph Katz from Houston. It's all coming your way as we continue Patient Power sponsored by M. D. Anderson Cancer Center.

Signs and Symptoms

Andrew Schorr:

Welcome back to our live webcast, Patient Power, discussing advances in the treatment of liver cancer. I'm Andrew Schorr with Dr. Christopher Garrett, a liver cancer specialist and hematologist/oncologist at M. D. Anderson, and patient Ralph Katz, who I am happy to say just goes for checkups now, and after three and a half years is doing really well.

Ralph, I have a question for you. So your gastroenterologist was monitoring you for higher liver enzymes, and you didn't have hepatitis C, and you weren't a drinker, he was watching that. So did you have any symptoms at all?

Ralph:

I was totally asymptomatic throughout my entire time that I found out, first that I had high liver enzymes, and that was back in the late 80s, and then all the way through that period up to surgery I had no symptoms. It's a very strange disease when there's no symptoms because you don't know what to do. If it hadn't been for that doctor insisting on a second CAT scan, I had had one about four years before and they saw nothing, and he said, you know, it's four years, let's do another one. And he did, and that's when they discovered the spot.

Andrew Schorr:

He is a special guy in your life.

Ralph:

You bet.

Andrew Schorr:

Okay. Well, that brings up the question, Dr. Garrett, people are listening, and they are wondering, maybe they have been diagnosed, was there some sign? So are there any symptoms typically that people should be looking for or that they will notice, or is it a matter of monitoring and imaging that we will discuss as we go along tonight?

Dr. Garrett:

Well, there is no pain receptors inside the liver itself. There are on the surface of the liver. So you can have a significant amount of things going on in your liver without any symptoms. And in order to pick up this disease early, in patients at high risk of developing cancer, and those are people that have cirrhosis, that have hepatitis C virus and cirrhosis, or who have chronic hepatitis B virus, those patients should be screened, in other words be tested when they have no symptoms. You know, every six months they should have a blood test or an alpha-fetoprotein and an ultrasound of the liver, and hopefully be able to pick up, you know, this disease early when it's more treatable such as in Mr. Katz's case. Because by the time you develop symptoms, you know, which would be weight loss and fatigue and maybe jaundice, at that stage it's usually advanced and less curable.

Testing and Screening

Andrew Schorr:

Now, you mentioned ultrasound, and Ralph had said he had a CT scan. Just for patients to know, you know, what sort of test should I be having, so what does the blood test indicate, and tell us about ultrasound and then when would a CT be needed as well?

Dr. Garrett:

Well, you know, to start off, the blood test is serum alpha-fetoprotein, and about 70 to 80 percent of these tumors secrete this protein, and it ends up in the blood, so that can be a signal to us to do more testing. An ultrasound is just bouncing sound waves, so it's safe and it's cheap and it's easy to do. CT scan involves x-rays so doing that every six months, you know, over time x-rays themselves can obviously be associated with some harm. So for screening tests we recommend an ultrasound. Now, if there is a problem or there is something that looks abnormal then we would follow that up with a CT scan which gives us better resolution and more information. And so in his case particularly when, as he mentioned earlier, this was very, very small, .8 centimeters. They would be able to image that better with a CT scan and also better look for other lesions. So once we identify a problem, then a CT scan, and we do a very specific, high tech, triple phase CT scan dedicated to the liver.

Non-Surgical Treatments

Andrew Schorr:

Okay. Let's carry on. So for people listening, I want to underscore what Dr. Garrett said. If you have hepatitis C or B, in you have had cirrhosis, then definitely that kind of monitoring and screening is so important because we want to detect this earlier. But, Dr. Garrett, unfortunately all too often it's detected later and there are more spots on the liver. You can't do the resection. You can't do the radio frequency ablation. And they are not a candidate for a transplant, or maybe there is not even a donor organ. So that brings up other modalities. So first of all help us understand, I know there is a way where you can do chemotherapy right into the liver. Do you call that chemoembolization? Did I get that right?

Dr. Garrett:

Exactly.

Andrew Schorr:

What is that?

Dr. Garrett:

Well, we initially put a needle into the artery in the groin, the femoral artery, and we thread a tube up into the liver. So it would be like patients having a cardiac catheterization where they have a tube put up into the heart. Here we thread a tube directly into the artery supplying the liver, and we go into one, either the right or the left side, leaving one side alone, unharmed, and we direct chemotherapy directly into the liver, into the tumors so they get a high concentration of chemotherapy. And then when we are done we actually block or occlude the artery completely. The liver has two sources of blood so it doesn't die completely. It's able to stay alive from the second source of blood, but the cancers are more dependent on the arterial blood, so by shutting off the blood supply you starve the tumors of oxygen.

So this chemoembolization, giving chemotherapy and then also blocking blood supply, that can in patients be associated with shrinkages of the tumors 20 to 40 percent of the time and control of their disease. It often has to be done multiple times. We have to go back and do the other side, and it requires two to four nights in hospital after the procedure.

Andrew Schorr:

Now, there have been some cancers where chemotherapy is delivered that way, I know in other areas of the abdomen, and people wear even a pump and go home with a pump that's pumping drug in there. Does that happen at all with treatment of the liver?

Dr. Garrett:

The pump is just giving chemotherapy alone, and it seems to be that the blocking of the artery, it seems to be that interrupting the blood supply to liver cancers is very important. So the results with chemotherapy alone are not as good as doing the chemotherapy and blocking the arterial supply once you are done.

Andrew Schorr:

Okay. Now, another area that's I know investigational at M. D. Anderson is having radiation be targeted and sort of implanted I guess, or maybe you can explain it, but with some sort of microspheres to the liver. How does that work?

Dr. Garrett:

Yes. There is a small glass particle, and they are embedded with a particle that emits a small amount of radiation, not to a very large depth. The name of the particle is yttrium, and we can inject this directly into the liver. And as I mentioned the arterial supply is favored by the cancer, so because of this it gets more of the radiation than the healthy liver. And that's a technique that we can do, and it's under investigation how beneficial it is. At this stage it's not clearly known, and we do have a clinical trial where we are evaluating its effectiveness. We are not sure if it's much better or the same as doing chemotherapy and occluding the artery.

Andrew Schorr:

Let's carry this forward now. So those cancer cells in the liver can spread, and I know they do to a variety of organs, the lung and kidney and the colon, etc. So when they spread then you need more systemic therapy. What do you have to offer now?

Dr. Garrett:

Well, in the past we had standard chemotherapy as we would with other solid tumors, and the results were not very promising. However, we now have oral medication that actually works in a way to shut off the blood supply, and as I mentioned earlier these tumors are very dependent on a blood supply for their existence. And we have an oral drug that helps to inhibit or retard the formation of blood vessels that are so important for these tumor cells to exist. And patients who take this chemotherapy, it's a drug by the name of sorafenib, just got approved last

December, overall appear to do better and live longer than those patients who don't receive therapy. So this has been a significant advance in our ability to treat these cancers that have spread beyond the liver.

Andrew Schorr:

So that's sorafenib, or I think the trade name is Nexavar?

Dr. Garrett:

That's absolutely right.

Andrew Schorr:

So help us understand. I know this is a big deal in newer medicines now is to try to starve the cancer of its blood supply. What does Nexavar or sorafenib work on, and are there other drugs that are trying to starve the tumor in other ways?

Dr. Garrett:

Sorafenib is a new approach. It's rather than targeting the cancer itself, we are targeting cells called endothelial cells that produce these blood vessels. And these endothelial cells are told to make blood vessels through a protein called vascular endothelial growth factor, and when this protein drops on a receptor or another protein on the surface of these cells, that stimulates them to make blood vessels. We can with this drug interrupt that receptor and shut down that message to make blood vessels. So we are not actually attacking the tumor, but indirectly we are attacking these supporting cells that are making blood vessels that support the tumor.

Andrew Schorr:

And then there are other ways of trying to do that too, and I know there are different exciting new areas of medicine. So investigational at M. D. Anderson are you trying some other drugs, too, that maybe work in a little different way?

Dr. Garrett:

Yes. So I mentioned the vascular endothelial growth factor. That's a very important angiogenic pathway. But we also know there are another pathways. Another one is called the basic fibroblastic growth factor mechanism. So we are looking at other drugs that are targeting not just VEGF, which is the kind of acronym we use for vascular endothelial growth factor, but we are also looking at basic fibroblastic growth factor as well as platelet derived growth factor. So we have drugs that, a new drug that we are looking at that blocks all three of these pathways, and we are hoping that will be even more effective.

Andrew Schorr:

So your armamentarium is expanding, and then hopefully letting people even with more advanced disease live longer and live better with these sort of targeted therapies. We will discuss this more. We have got some questions for you that we are going to fire along to you. And also if people who are listening would like to call in with a question, here's the phone number. 877-711-5611. That's

877-711-5611. Any question about primary liver cancer, whether it has just limited itself to the liver or spread elsewhere in the body. And with us is Dr. Christopher Garrett from M. D. Anderson and also Ralph Katz who has lived through all this. We will be right back with much more Patient Power right after this.

Listener Questions

Andrew Schorr:

Welcome back to our live webcast of Patient Power discussing advances in the treatment of liver cancer. And because it's live, that means you can call in or you can send us an e-mail, and several people have.

And someone has. Let's take the call from Denise. Denise, welcome to Patient Power. Where are you calling from?

Caller:

I'm calling from New Iberia, Louisiana

Andrew Schorr:

Okay. Welcome. Now, Denise, have you been touched by liver cancer, and if so, how so?

Caller:

Yes, I have. I have been diagnosed about 15 months ago with angiosarcoma, and it's a vascular tumor, and while listening to the program today I was wondering if this involves vascular tumors or not as far as, you know, the treatments that are available out there.

Andrew Schorr:

Okay. Dr. Garrett, you're a hematologist/oncologist. Is that the primary liver cancer, or is that a little different?

Dr. Garrett:

That's a little bit different. So liver cancer arises from the liver cells. Inside the liver there are other cells, lymph nodes and blood vessels, and you can get cancers of those as well, like a lymphoma, or if you get a cancer of a blood vessel, you can get a sarcoma, and those are supporting tissues. Angiosarcomas are different. They are rare, and they are one of the forms of sarcomas, and right now we are treating those more with chemotherapy, although anti-angiogenic drugs are certainly being investigated. They are certainly being looked at in clinical trials, so it would probably be worthwhile chatting with your doctor and seeing what experimental therapies are available because it is a rare and unusual tumor.

I will parenthetically add that we are lucky to have people like Ralph Katz who are willing to participate in clinical trials because without their participation we wouldn't be able to bring these new drugs and new therapies into the clinic for wider use.

Andrew Schorr:

Right. Right. Denise, we are going to let you go. I will just mention though that we have a whole library of programs at mdanderson.org/patientpower, and we have discussed over the last couple years many, many different types of cancers. If you ever have suggestions of other things we should talk about, just let us know. But we are going to let you go and wish you all the best.

Doctor, I do have other questions for you though that have come in via e-mail. Let me get to them. One of the questions was, "Is PET scanning helpful in observing either what's going on with the tumor or how it's reacting to the treatment you are giving." And maybe in your answer you can help people understand what is PET scanning.

Dr. Garrett:

Well, PET scanning is where a small dose of radiation is administered, and it's given linked to, basically linked to a sugar. And all cells in our body take up sugar, but cancer more so, and so very actively dividing and very active cancers can take this sugar up with the radiation, and we can detect that radiation with a Geiger counter. It turns out that there is about 20 to 30 percent of liver cancers grow slow enough that they don't pick up significant amounts of sugar and will not be detected on a PET scan, and so in some cases a PET scan is inferior to CT or MRI. So we are not routinely doing it, and we still believe that a CT scan is probably the best test for evaluating the extent of a person's primary liver cancer.

Andrew Schorr:

I have a follow-up question, though. There has been some investigation to see at least with some tumor types whether a certain chemotherapy is working and observing that on PET scanning, but it sounds like the liver cancer cells are not going to tell you always the true story there. Is that right?

Dr. Garrett:

That's right. In some cases they will uptake on a PET scan, and in that case if that were to be the case it might be able to tell you if a patient is responding to therapy because you bring up another very good point. What we have found with liver cancers is that very rarely even if they are responding to the treatment, very rarely do they shrink, you know, less than ten percent of the time, and we don't know why that is. It's unlike other cancers. Maybe it's because the liver is damaged and can't grow in and fill in the area where there previously was tumor, but in some cases the tumor can die and turn to liquid, but you are left with a scar of the same size as the original cancer. And if PET scanning does show uptake of our radio tracer, it possibly could help us decide if those patients are receiving benefit.

Andrew Schorr:

Right. And the whole idea there is to see if you have more than one drug to use is this one working or do we need to try another, correct?

Dr. Garrett:

Precisely. That's exactly right.

Andrew Schorr:

Okay. So then if chemotherapy is not shrinking the tumor, is the idea that it's preventing its spread?

Dr. Garrett:

Yes, exactly. You can kill cancer, but just not shrink the tumor. Sometimes you can kill the cancer and be left with a scar, or it can turn to liquid but it just doesn't shrink. And part of the reason it doesn't shrink is that the liver is unhealthy, and in order to shrink normal liver would have to grow into that area, and perhaps the liver is just not healthy enough to be able to grow in and fill the defect. So we have seen cancers die, but just not shrink.

Andrew Schorr:

I have got a question for Ralph. So, Ralph, let's go back to three and a half years ago when your gastroenterologist said, you know, I am worried about this spot. At that time before the biopsy, did he say, well, it's possible that this spot is not cancer? What did he tell you?

Ralph:

He was very honest. He said it could be cancer, and I am not sure that it is, but I want an expert to look at it. And that was the pathologist.

Andrew Schorr:

Okay. So, Dr. Garrett, help us understand. Put this in perspective. When somebody gets the news that there is a spot that shows up on some sort of imaging, is it necessarily cancer, or what are the percentages? Or how should somebody feel about that, or you just wait and find out?

Dr. Garrett:

Well, there are other benign conditions like adenomas and benign vascular conditions that can give you a spot that are not cancer, and if a patient has a very high level of the alpha-fetoprotein that I mentioned in the blood and also has cirrhosis, we can assume that if there is a solid lesion on very good CT scanning it represents cancer. In Mr. Katz's case his alpha-fetoprotein was not elevated, and therefore it would be important to do a biopsy to confirm that it was cancer. And I believe that's what he did have, and analysis of the tissue did confirm that it did represent cancer.

Andrew Schorr:

All right. Now, I want to mention that this is a very rare opportunity where we get to do a live webcast, as we do all the time with M. D. Anderson, which is a thrill, but connecting people around the world with a leading expert in a specific cancer type. And here we have Dr. Christopher Garrett tonight. So we have got an e-mail

from Carrie from Dallas who wants to take advantage of that, Dr. Garrett. She wrote in the e-mail, "What sort of side effects can I expect from chemoembolization?"

Dr. Garrett:

Immediately after the procedure some patients can get some pain. They can get fever. They can have some nausea. Generally those pass after two to three days, and by and large patients recover quite quickly. Occasionally patients can describe some fatigue later, but most of the acute symptoms occur within a couple of days, and we manage those, and then patients usually recover without symptoms after that. Most of the symptoms are acute and short-lived.

Andrew Schorr:

Now, might somebody have chemoembolization and also be taking that oral drug, sorafenib, as well?

Dr. Garrett:

Well, that's a very good question. We don't know if doing chemoembolization and following that with oral chemotherapy, we don't know if that is a good approach to take, and it is something that is being studied in clinical trials at this time. And in some people at very high risk, it is being done, but it is something we are just starting to study now and just trying to learn if it's a good approach to take.

Andrew Schorr:

And let me just mention in our live webcast if you would like to join the conversation and understand better the advances in the treatment of liver cancer, just call us, 877-711-5611. Again the number is 877-711-5611. Or you can send us an e-mail as Carrie just did from Dallas, and that e-mail address is patientpower@mdanderson.org.

I want to ask you another question, Dr. Garrett. So it sounds to me like it's very variable. So we had Ralph who went through a number of treatments and then was fortunate enough to have a liver transplant, and we are going to put in a pitch for organ donation in a minute. And then there are other people who, boy, it can move very fast, and quite frankly they don't have a long time. And then there are other people where it seems it can be managed longer and managed better. Is there any way to predict?

Dr. Garrett:

No. It is complicated, and it is complicated by the fact that they have an organ that's damaged, and that has to be taken into consideration. And we have a number of different treatments, and which treatment we utilize is predicated on a number of different factors. And I think that it would be important that a patient go to a center that sees a lot of these patients, that has multidisciplinary doctors, who has surgeons, transplant surgeons, radiologists, people that can employ all of these different therapies, and that the doctors sit down together and determine what's

the right therapy for that patient. And that means every week we sit down and go over cases, and we determine what's the most suitable, most appropriate approach. And I think that's the approach that gets the best results for patients.

Andrew Schorr:

Right. Two comments I want to make before we take a break. First of all, I was correct that one of the transplant, say you have a huge Texas Medical Center, and one of the transplant surgeons from Memorial Hermann is there as part of your group and meets to discuss cases, so I know that you discuss the full range. And the second point I always like to tell people is you are not a statistic because like when I read about my leukemia when I was diagnosed 12 years ago, it said, "an always fatal condition," you know. And that didn't sound too good to me. And maybe you have read about liver cancer and the statistics don't look good, but it's going to be very variable, and here's Ralph with us working every day and doing well three and a half years later. So much more to discuss.

We are going to take a call right after the break from Kay who is holding from Tampa. Kay, stay tuned. And we have an e-mail from Louis in Brenham, Texas. I have never been there, but we are going to take Louis's question. You are welcome to give us a call as well, 877-711-5611, 877-711-5611, or send us an e-mail to patientpower@mdanderson.org. We will be right back with Dr. Christopher Garrett, Ralph Katz, and me, Andrew Schorr.

Andrew Schorr:

Welcome back to our live webcast discussing advances in the treatment of liver cancer, and, you know, when you think as Dr. Garrett was just mentioning what it takes to really have all of the modalities aligned for your personal situation, you need a major center like M. D. Anderson. So if you or someone you care about is diagnosed with liver cancer, beat a path to such a center. You know I am a fan of M. D. Anderson, and we are happy to provide you information tonight, but really see people who specialize in what you have got. Dr. Garrett is such a specialist.

Let's take a call from Kay who joins us from Tampa, Florida. Hello. Welcome to Patient Power, Kay. You are on the air.

Caller:

Hi. Thank you for taking my call.

Andrew Schorr:

Sure. What's your question?

Caller:

I have a close relative with liver cancer. The tumor was larger, or there's multiple tumors, and the tumor I believe is 11 centimeters, so it was larger than the five. So what they were trying to do was reduce the tumor size with transarterial chemoembolization, and they were a little bit successful with that, but now the artery is blocked and they can't do it anymore. My concern is that it seems to be

one focus, the chemotherapy issue only, and I am wondering are there other things that ought to be examined? The doctor is very good, but, I mean, I hear you talking about the radiation and that sort of thing, and I am just wondering do we have too much tunnel vision on the chemotherapy?

Andrew Schorr:

Okay.

Caller:

And how do I get a second opinion without annoying the current doctor?

Andrew Schorr:

Oh, well, wait. I want to comment on that before we go to Dr. Garrett. Do not worry about annoying a doctor or feeling like you are being disrespectful. And I will tell you, every world famous doctor that I have talked to on our programs said they welcome people getting second opinions with them or going to someone else to get a second or even a third opinion. Do not think about that. Your loved one's life is on the line.

Caller:

Well absolutely, and that's why specifically I started looking on the web, and I found your program so.

Andrew Schorr:

Right. Thank you. I am so glad.

Andrew Schorr:

Dr. Garrett, I know we can't practice medicine on the internet, but from the situation Kay describes of just it sounds like the chemoembolization, is there more that can be brought to bear generally not knowing that loved one's specific situation?

Dr. Garrett:

There is. We are looking at all different range of therapies, even experimental. So we are looking at radiation from outside the liver. We are also looking at proton beam therapy experimentally on a clinical trial, which is using a specific type of particle as a type of radiation. So we are looking at a whole range of modalities.

And, you know, I would second what you said. Most doctors are happy when a patient gets a second opinion. They want what's best for the patient, and they want to make sure everything that they are doing is right, and so it gives them a certain comfort level to know other doctors are participating in the care and that they are not shouldering the care all themselves. So I think a lot of people worry about doctors being offended, but more often than not the doctors are happy to participate with other doctors in the care of a patient.

Andrew Schorr:

Kay, I hope that helps you.

Caller:

If I were to contact M. D. Anderson for a consultation, would the treatment be able to be done locally or would it necessarily have to be done at M. D. Anderson?

Dr. Garrett:

Sometimes it can be done locally. It a little bit depends on the situation. If it's experimental, and it's something, then it may have to be done here. So it depends on the specifics and the circumstances of each individual case.

Andrew Schorr:

Kay, I am just going to jump in here with a couple of points. First of all he mentioned proton therapy. That is not on every corner. We are talking about like \$100 million or more to put a center like that together. M. D. Anderson has one. There are a few others around the country, and there are others developing, but there are not many. So if you were to consult with M. D. Anderson at least you would understand the full range of options, and then you could understand what could be done locally, what they only have there, either something like proton therapy or other clinical trials that need to be monitored ongoing by M. D. Anderson.

Now, I will say in my case I was able to be in a clinical trial at M. D. Anderson where the first dose the drugs was there but they were drugs that were approved for other cancers, and then they could be used. We could have it back actually at an HMO that I was a member of back in Seattle, but that varies by clinical trial or modality. I would just urge you to get an assessment at a center such as M. D. Anderson where they have everything. So all the best to you.

Let's go on to a question we got from Louis as I mentioned in Brenham, Texas. Dr. Garrett, he writes in, "My mother has been taking Tarceva," which I know is a drug that Ralph had for just a little bit, Tarceva, and I know it's used in lung cancer, I believe, "and is experiencing dizziness. Is this related to the drug?"

Dr. Garrett:

It is possible, although that's not a typical symptom with Tarceva. It depends, if it just started with the onset of the drug and depending on what kind of symptoms of dizziness she was having, it is possible. Drugs can, but that's not a typical or frequent symptom with Tarceva. So you might want to check with your doctor and just make sure it's not being caused by something else. But if it's severe enough, you can always try stopping the drug and see if that makes it go away, and if that occurs that pretty much establishes that it was the source of the problem.

Andrew Schorr:

Now this brings up a point, the mention of Tarceva and also other drugs. And I had drugs that were approved for another cancer and then were tried experimentally for

my leukemia. You mentioned about sorafenib approved for liver cancer, and then there are other drugs you are looking at. Is that often what happens? There may be some drugs that are approved, but there are others that have been effective in other cancers, and then there are trials to see will they work for this one?

Dr. Garrett:

Exactly, yeah. Cancers have very similar pathways, they have very similar needs, so as you know sorafenib initially was looked at in kidney cancer which was very dependent on blood vessels, that particular type of cancer, and it's been looked at now in a wide range of cancers. And the ones that have shown the most promise in have been kidney and liver. But trials are ongoing in other tumor types as well, including soft tissue sarcoma. So you are absolutely right. Drugs that work for one condition, one particular type of tumor, may have application in other solid tumors.

Andrew Schorr:

Okay. I want to get in a couple of other questions. We may go just a couple of minutes long. This is such an important topic. They all are, but I want to make sure we get in this question too from Jim. Jim writes in, "My wife is diagnosed with cholangiocarcinoma." So first of all, is that a liver cancer?

Dr. Garrett:

Well, that is. There's bile ducts inside the liver and outside the liver, and this is a cancer of the bile ducts.

Andrew Schorr:

Okay. And he says that she is currently enrolled in a clinical study involving, it looks like, I don't know if it's HAI or HAL, but anyway using oxaliplatin along with an IV cocktail of fluorouracil and Avastin. And his question is what is the difference between, is it HAI? Is that what you call it?

Dr. Garrett:

HAI would be hepatic artery infusion, so giving that drug directly into the liver.

Andrew Schorr:

Okay. So here's his question, "What is the difference between HAI and chemoembolization?" Or is it the same?

Dr. Garrett:

So hepatic artery infusion is just giving the drug itself into the liver, and that can be done repeatedly, and a lot of times you get a higher concentration of the drug directly into the liver. And a lot of times the liver breaks down these drugs, so if you give it by vein, after its first pass a lot of times the drug is broken down, but here you give it directly into the tumor. And all you give is the chemotherapy so you are not interfering with the arteries. You are allowed to do it multiple times. When we do an embolization when we are done giving the chemotherapy, we actually block off the artery, so it's something we can't give multiple times because we just shut down the artery that's going into the tumor. Occasionally the new

vessels can form, bypassing the blockage, and we have to go back in and block those as well, but generally the chemotherapy is only given once into that artery because then we shut it down. We actually physically occlude it.

Andrew Schorr:

Now, I know this really deals with individual situations, but how do you decide what to do when, either this HAI or the chemoembolization? They are similar but different, so how do you decide which to do?

Dr. Garrett:

So for liver cancer, a little bit different from cholangiocarcinoma. But for liver cancer giving chemotherapy alone the results are not as good because as I mentioned earlier the liver cancers are so dependent on blood vessels that if you can starve them of blood vessels and starve them of oxygen, that appears to be a more effective route.

Giving drugs directly into the liver for cholangiocarcinoma, that is experimental and that's why this gentleman is getting it done on a clinical trial. As you mentioned earlier we often look at drugs for different indications, and oxaliplatin is a drug that's been approved for colon cancer since 2002, and we are now starting to study that in different cancers, and in his case they are giving it directly into the liver hoping to get an even better effect rather than giving it by vein.

Andrew Schorr:

All right. We have covered a lot of ground. I have a question for you, Dr. Garrett, and then I am going to give the last word to Ralph Katz. So, Dr. Garrett, you have been at this a little while and hopefully will be with us for a long time. Let's hope for a cure of course. Are you optimistic? I know the situation varies for many people, but it sounds like you have a few different modalities. Are you optimistic?

Dr. Garrett:

Well, we joke that optimistic people become oncologists, so I think by nature we are optimistic people. And yes, I think we have seen improvements, you know, in the 15 years I have been doing this. So incrementally we are seeing improvements every year. You know, I think in my lifetime we are going to see a significant number of cancers cured by multiple different therapies, and I am very hopeful for the future.

Andrew Schorr:

Well, I always give the example that I was patient number 60 in a phase II trial at M. D. Anderson, and, you know, now around the world, I got the treatment eight years ago, now around the world many people get what I got and are doing much better statistically than ever before, so there is progress.

Now, one other thing before I let you go, Dr. Garrett, and that is Ralph benefited from a 17-year-old man who unfortunately died, a man from Waco, Texas, but

various organs were donated, and he ended up with that gentleman's liver. Organ donation, what can we say to people to consider that, have that on their license, and really know that that can be a gift of life?

Dr. Garrett:

Yeah. I think a lot of people would like to donate their organs but just don't know that they have to signal to people while they are alive this is what they want to do, and the easiest way to do it is on your license. And by doing that you may give an amazing gift of life to somebody, make a huge impact on someone's case, and really it's no cost to yourself. It's just a matter of being aware and making that positive statement while alive, and if more of us would do that, you know, a lot more people would be able to receive these vital organs.

Andrew Schorr:

Absolutely, and make sure your relatives know. Make sure they know as well. Dr. Christopher Garrett, hematologist/oncologist and associate professor at M. D. Anderson and a liver cancer specialist, thank you so much for being with us on Patient Power.

Dr. Garrett:

Thank you very much for having me.

Andrew Schorr:

All right. Well, Ralph Katz, those guys at M. D. Anderson have done a good job for you, huh?

Ralph:

Oh, they have done a fantastic job. It's a miracle world. That is a true miracle world.

Andrew Schorr:

Yes, I know. You and I have talked on the phone about how it's such a positive place, and you are doing so well. But you are upbeat now, Ralph, and you go into work every day. Somebody is listening, and you heard Kay worried about her loved one. They are not so upbeat. They are very, very worried. What can you say to people who are in the throes of that as you were when you were diagnosed to give them hope to go forward?

Ralph:

Well, my wife always says that the day we found out that I had cancer was probably the worst day of our lives and then the best day of our lives because we just took the attitude that, okay, this is something that happened and now we have to try and solve the problem. You need a support group. You need family. You need friends. And that helps. If you try to do this on your own you are not going to make it. You need help. Ask for help. And then you get to M. D. Anderson as

quickly as you can. Never give up hope that it won't work out. In some cases it doesn't, but you have to go beyond that, and you have to look towards the future, and you have to look to getting better.

Ninety percent of my recovery was mental. When I was in the hospital after the transplant I just said, okay, it's over. The liver is working. Now let's get well and get back to work. And it's something that you have inside yourself. It's not easy to tell people to do that, but they have to make sure that they can rely on their own inner strength. By the way, prayer doesn't hurt.

Andrew Schorr:

Right. Right. Ralph, well, you think like an engineer, buddy, but more of us need to do that to get through this and move on. I wish you, what, you have got four children and four grandchildren, and so I hope you can dance at many weddings.

Ralph:

I plan on it.

Andrew Schorr:

There you go. And I wish you a long, happy life. Ralph Katz, thank you so much for being with us and sharing your story with us today.

Ralph:

Thank you so much for having me.

Andrew Schorr:

All right. This is what we do on Patient Power, folks. In our next program on December 2nd if you are with us for that on December 2nd is "Advances in the Treatment of Melanoma" which, you know, develops on the skin, but that can progress to other organs, so it can be fatal. Skin cancer, if you will, but it really can spread other places, but we will have the latest on that in two weeks.

But I think we have all learned a lot from our program with Dr. Garrett and Ralph Katz tonight about liver cancer. And please, I want to underscore a couple of lessons. One is, if you or someone you know has been diagnosed with hepatitis B or C, as more people have in the US, then you want to be monitored, and that can be lifesaving in detecting a liver cancer early. And then if you have these elevated liver enzymes as Ralph did, you want to be followed and as he said, his gastroenterologist who said let's do a CT scan, he thinks that was lifesaving for him as well. So you want to have those checkups.

We wish you all the best. I thank you for joining us tonight. And as always this is what we do. All our programs are on replay. We will add the replay for this program tomorrow. We will add the transcript within a week or two. And then the whole library is at mdanderson.org/patientpower. I am Andrew Schorr. Remember, knowledge can be the best medicine of all. Good night.



Please remember the opinions expressed on Patient Power are not necessarily the views of M. D. Anderson Cancer Center, its medical staff or Patient Power. Our discussions are not a substitute for seeking medical advice or care from your own doctor. That's how you'll get care that's most appropriate for you.