

Recent Advances and Challenges in Solid Organ Transplantation

Webcast

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Dr. Michael Abecassis

Jay Dolgin

Michael Dolgin

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ANDREW SCHORR:

Thank you for joining us again for another great Northwestern Memorial program. You know, there's nothing like this anywhere in the country, so I'm so delighted we can do this every couple of weeks and bring you important health information.

You know, one of the areas that is really scary when it happens to you is should you find out that an organ is failing and that you need to be on a transplant. And if you keep up with the news you know there is a terrible shortage of donor organs. Some of us have, you know, "I'm an organ donor" on our driver's license, but as you'll hear as we go on that's often not enough to make it happen when an organ is needed.

Also, there are only a few places in the country that are really top-notch in having live donations. That's where a friend or a family member can donate an organ such as a kidney. Northwestern is one of the very best, and you'll be meeting the head of the transplant department in just a few minutes as we discuss the excellence that Northwestern has.

But, of course, what's important is it makes a difference in people's lives. So I want you to meet someone, a Chicago attorney, Jay Dolgin. Jay's 62, and about three years ago, I guess, Jay, you had a kidney transplant, and the donation came from your son.

JAY DOLGIN:

It was about three years ago and, you know, doing great.

ANDREW SCHORR:

Right. Jay, I wanted to ask you about that. Tell us, why did you need a kidney donated in the first place.

JAY DOLGIN:

I have a disease that's called polycystic kidney disease. It's a genetic disease that my mother and grandmother had.

ANDREW SCHORR:

And your mother died from it. I guess, your grandmother did too, right?

JAY DOLGIN:

Well, my mother did not die from it, but certainly it was complications that arose from it.

ANDREW SCHORR:

And your mother, because her kidney was failing, she was on dialysis for many years?

JAY DOLGIN:

Yes, she was on dialysis for 12 years.

ANDREW SCHORR:

And you saw that, of course.

JAY DOLGIN:

Right. Right.

ANDREW SCHORR:

And what did you say to yourself. Should that disease, this genetic condition, ever happen to you, did you say, I just don't want to go there if I can prevent it at all?

JAY DOLGIN:

Absolutely. My mom actually had dialysis at home for five or six years, and it was a tremendous drain on my dad. And then she went back to the facility. And, you know, three times a week, four hours a time, it's a real life changer. So I clearly did not want to do anything like that.

ANDREW SCHORR:

Right. And anybody listening who is on dialysis or has a family member knows how it can be very, very difficult. People who develop kidney problems after diabetes, hypertension, polycystic disease, as in Jay Dolgin's case.

So Jay, how did you know that your kidney was failing?

JAY DOLGIN:

Well, the physician that I had had urged me to be tested, and, of course, I didn't want to be tested because there is no cure and there wasn't any cure at the time. And while they're getting close today, they still don't have a cure. So I was very reluctant to discover that I had this because if they couldn't do anything for me, what was the point of knowing?

Well, finally I agreed to do it as long as I could do it anonymously so that it wouldn't impact my insurance, and maybe that's not the right way to do things, but I was able to do that and discovered that I had it. And then physicians just watched my creatinine levels for five years, and when as they finally went over what they considered to be a normal rate creatinine level, he suggested that I had to see a nephrologist. And that's when I really started to try to take care of myself, because I didn't know there was anything I could do to lengthen the time that I would have my kidneys.

ANDREW SCHORR:

Now, Jay, is there anything in your daily routine that would help you know when your health is failing?

JAY DOLGIN:

No. The truth is when you have a kidney disease like this you don't feel anything. There's nothing that changes. Your chemistry will change if you're taking blood tests. Your creatinine level will tell you how your kidney is functioning, and if you don't have that test done then you don't know that your kidney is failing. Really, until almost probably the last six months before my kidneys really were about to fail I could live normally like anyone else.

ANDREW SCHORR:

What about your daily exercise? I know you like to exercise. Could you begin to tell, you were getting tired or anyone was going on, that maybe it was getting to the point where you would need some intervention?

JAY DOLGIN:

Well, clearly that last year before I needed the transplant I would keep telling myself that my energy level was low but it would be better the next day. Of course, the next day I would go to do my exercise program and it wasn't better. But you don't want to admit that, so you just spend a year doing less and less. If you're crazy like I am and love to do exercise every day, you discover that instead of doing a half hour of a high energy workout you end up doing 10 or 15 minutes, and it's not very high energy.

ANDREW SCHORR:

Okay. So you end up at Northwestern Memorial, start talking to the transplant team, and you want to find a donor if you can.

JAY DOLGIN:

That's right. Until I was told that I had to go on the transplant list only my wife knew about this because, again, I didn't want people asking me how I was feeling because I felt fine. And there was nothing that anybody could really do about it, so we just didn't say anything to anybody. When I went on the transplant list they had a seminar, and I thought it was important at that point for my children and my

family, my extended family to know. And so we kind of told everybody and invited my--I have three sons. Two of them lived here at the time, and I asked them to come with us to the seminar.

So we all went. We learned a little bit. Apparently after that seminar my oldest son, Michael, decided to have a blood test to find out what his blood type was, and he discovered that his blood type is the same as mine and called me up and announced that he was the person who was going to give me a kidney. You should also know that Michael is also adopted, so it's really an incredible--I still get teary-eyed thinking about it.

ANDREW SCHORR:

Well, let's meet Michael. Michael Dolgin is with us. Michael, why did you do it?

MICHAEL DOLGIN:

I didn't really think it was a hard choice, you know. The seminar was very helpful. My father and my mother had kept it to themselves for quite a long time, and when it was time to go on the transplant list they invited us to the seminar, and we didn't know much about what was going on. But the seminar was very helpful. It was very informative and explained the process that it goes through now and the advances that doctors made with the drugs that they take to now control it better. It doesn't have to be quite as exact a match and everything else.

And I had to know what my blood type was. And I decided that I was going to go and donate some blood and through that we would find out what I was. And when I did I talked to them and we decided I would proceed with the process. It wasn't a hard decision to make, you know. When somebody you love is in trouble you, you know, you do what you got to do.

ANDREW SCHORR:

What a gift, Michael. And Jay, you had the transplant in 2003, and you're doing well since then?

JAY DOLGIN:

Yes, doing very well.

ANDREW SCHORR:

And Michael, you went through the donation and you're doing well?

MICHAEL DOLGIN:

Doing great.

ANDREW SCHORR:

Okay. Well, we want to meet the head of transplantation from Northwestern, and we'll be back with you.

Dr. Michael Abecassis is the head of transplantation and really started the whole center there at Northwestern. Doctor, thank you so much for joining us.

DR. ABECASSIS:

Oh, no, thanks for having me.

ANDREW SCHORR:

So you hear a story, Jay Dolgin and his son, and an adopted son, where you were able to do the matching and it works out, donates a kidney. It must make you guys feel great that that can happen. And then you hear that both the donor and certainly the patient are doing well.

DR. ABECASSIS:

Well, one of the biggest struggles that we have as transplant surgeons is knowing that we have an operation that can save lives, we've perfected the operation, we've almost perfected the medication to prevent rejection, but, unfortunately, we cannot offer the operation to a large number of patients because of the donor shortage. And it becomes very frustrating to follow a number of patients that you know would really benefit from transplantation but there's no donor and therefore you cannot transplant them.

So a story like this is really very helpful in dealing with that frustration because you know that somebody has had the opportunity to have a transplant because of somebody else's altruistic action, and hopefully both the donor and the recipient will continue to do well for many years. So it helps a lot in dealing with the frustration that we have to deal with every day.

ANDREW SCHORR:

There are a couple of points I wanted to bring out related to Northwestern Memorial and your program. So you really are one of the leaders in living donor transplantation, correct? Tell us a little about that.

DR. ABECASSIS:

Well, yes. We're a leader both in living donor kidney transplantation as well as living donor liver transplantation, particularly for adults. Part of the reason that we are is, for the kidney, we were one of the first centers in the world to use the laparoscopic method for donor nephrectomy. And I'm sure that that's what we used if the transplant occurred in 2003 in this particular case.

ANDREW SCHORR:

Yes. Michael, you didn't have a big incision, right?

MICHAEL DOLGIN:

No, it's quite small. Several quite small ones, but quite small.

ANDREW SCHORR:

Right. Good. That's exactly what the doctor's talking about.

MICHAEL DOLGIN:

Yeah, it was definitely a laparoscopic procedure.

DR. ABECASSIS:

So, of course, we can do the surgery through little tiny incisions, but we have to remove the kidney and that requires--so we make the incision just as big as it needs to be to literally squeeze the kidney out. And, anyway, so I think that the advent of laparoscopic donor nephrectomy has really changed people's perception and attitude towards being a living donor.

Now, it is a laparoscopic procedure but it is a big operation nonetheless, so you can't take any credit away from what I consider to be the heroes in all of this, and they're the donors. It is a big operation and it's a big sacrifice. But compared to the traditional open nephrectomy it really is a lot easier to recover from this operation. And so what I have seen happen since we started utilizing this type of operation is that I think that people are a little more likely to volunteer to do this because they know that the recovery is a lot easier than it used to be.

But, more importantly, I think that patients who need transplants are perhaps more likely to accept that someone volunteered to be their donor if they know that the recovery is not going to be as painful.

ANDREW SCHORR:

Right. We're going to take a break, Doctor. That's a good point. We'll have plenty of time to continue as we have our discussion on the advances and challenges of transplantation from the point of view of one of the best, Northwestern Memorial Hospital transplant department.

We'll be back with you in just a minute as we continue with Patient Power.

ANDREW SCHORR:

Welcome back as we continue with Patient Power on HealthNet on Northwestern Memorial's website. And this is a very unique show that we do every couple of weeks to help you be a smarter patient or family member on important health issues.

And as I was saying at the beginning of the program, should somebody have failing organs, particularly their kidney or pancreas or liver, you know, you have a serious health problem. And as we've talked about, there is a shortage of available organs from people who died, and so living donors come into play as well. And that's what helped Jay Dolgin when his kidney was failing. And we've heard from him. And

Michael is with us as well, his son who donated his kidney. And now with laparoscopic procedures the incision is much smaller. Still, you know, as Dr. Abecassis was saying, head of transplantation was saying, it's still they're heroes.

So Michael, we want to give you a lot of credit. I know it was a natural thing for you to do as a son. More people should think about it, shouldn't they, because it really could save a life, can't it?

MICHAEL DOLGIN:

Yeah, I think so. You know, I'm, what you say, it wasn't a difficult decision for me to do, I've said that. But, you know, I guess it should be pointed out that, as my father mentioned, I was adopted. There was no blood connection between us that would make me a better match than anybody else out there walking in off the street. I just happened to be the right blood type, and they were able to go ahead with the procedure. I was in fairly good health, and it was not an overly difficult process at all. There was some testing in the beginning that was done pretty rapidly, and it was determined that I was a match. And then it was just a matter of waiting until it was time to go ahead with the procedure.

ANDREW SCHORR:

You know, if you think about it though, kind of like if People magazine were writing about it, they'd say, here's a guy who is an adopted son, donates his kidney. Well, now you and your dad, Jay, have quite a bond, don't you?

MICHAEL DOLGIN:

Oh, absolutely. It was something that I was more than happy to do. You know, the alternative wasn't something that I wanted to think of, and regardless of adopted or not he's my father and, you know, I was absolutely thrilled to do it.

ANDREW SCHORR:

Well, good for you.

MICHAEL DOLGIN:

And the procedure itself is not a very difficult process in the large scheme of things. It was a little bit of pain for a few days and, you know, overall it wrapped up pretty easily and that was it.

ANDREW SCHORR:

Well, when your dad plays with your two kids, the grandkids, it must give you a lot of joy to know that you can all enjoy that together.

MICHAEL DOLGIN:

Oh, absolutely. Absolutely. It's something that I'll always be able to have, and, you know, that might not have been the case necessarily.

ANDREW SCHORR:

Right. Well, let's understand this a little better clinically from Dr. Abecassis.

Doctor, so Michael was mentioning, so he was not a blood relation to his adopted dad, Jay, and yet he was able to donate. I used to think that there was all this matching and all this kind of stuff and often it didn't work out. Where are you with that now?

DR. ABECASSIS:

So you used to be right.

ANDREW SCHORR:

Okay.

DR. ABECASSIS:

The evolution of transplantation in general, and living donor transplantation in particular, over the last 50 years has gone from transplantation between identical twins only followed by transplantation between nonidentical twins followed by transplantation from family members that had a good DNA match to what we do today, which is transplantation between people who are not at all related, blood related. And we call it they should be emotionally related.

And the reason for that evolution really has been the anti-rejection medications that are so good now that there really is no benefit at all to having any type of DNA match or blood relation between the donor and recipient. And the only exception to that even today is if you have an identical twin that wants to be a donor for you that's great, because it means that you don't need to take any anti-rejection medication because identical twins have identical immune systems. But short of that it really doesn't matter any more whether you're blood related or emotionally related.

But I'd like to pick up on something that Michael said which I think is really important. And that is that currently we match two things. We do a blood type match, and then we do what is called a cross match to make sure that there's no antibodies that are going to cause problems. And if the blood match is not the right blood match or if there's a positive cross match such that there's problems with antibodies, that's not the end of the road either, because we are now commonly using, routinely using medications that allow us to do transplants even when the blood type is not the right blood type.

We still prefer to have a person that is of a compatible blood type, but there are new medications that have come to be in the past year or two that allow us to do transplants even though the blood type may not be the right blood type and even though there may be antibodies that normally, even a couple of years ago, would

have totally prevented us from doing the transplants.

So I think that even donors that might have been ruled out even three or four years ago would today be able to donate for a living donor transplant.

ANDREW SCHORR:

Here's a question we got in that kind of relates to that. It's from Mark in Joliet. And Mark has emailed in, "I've been on dialysis for three years. I was told I could be evaluated and placed on the transplant waiting list. My son is interested in donating his kidney to me. What's involved with my son and I being evaluated at Northwestern?"

DR. ABECASSIS:

So we would normally ask the person who is willing to be a donor to call us. And so in this case you have a person who needs a transplant who's saying that his son would like to be a donor. We don't accept that, of course. We have to hear from the son directly. So the son would contact us and say, I would like to be a donor. And then we would ask him to fill out a health questionnaire to make sure that he is otherwise healthy as a screen.

And then we would have him seen by a physician, either close to home or a physician at Northwestern. And we typically have them seen by a physician from our Independent Donor Advocate Team, because we like to keep the evaluation of the donor separate from the transplant patient in order to avoid any potential conflict of interest. And we call that the donor advocate team. So as soon as the person steps up to be a potential donor they are assigned to the donor advocate team that is separate from the team that is going to be involved with the transplant.

Then the physician that examines the potential donor is part of the donor advocate team. And then we would get an evaluation from this physician after he has examined the donor and after he has sent off the necessary blood work to make sure that there are no medical problems. We would get basically the green light from this donor advocate physician, and at that point we would contacted the potential donor and say, Everything looks good, do you still want to do this? And if the answer is, Yes, I still want to do this, then we would contact the recipient and say come on in and let's put this thing together.

So it's a long process that is very well thought out in order to make sure that we protect the potential donor in terms of confidentiality and in terms of them not being coerced in any way potentially by the recipient.

ANDREW SCHORR:

And Michael, you were very pleased with the process, right?

MICHAEL DOLGIN:

Extremely pleased with the process. I think we were fortunate enough that my father had not gone on dialysis yet and we were able to kind of plan it out and then were able to wait until his kidneys reached the point where he was going to have to go on dialysis and did the transplant at that point. I think it was probably about nine months to a year between the time that I had confirmed that I would be a good donor for him and the time that the transplant actually occurred.

ANDREW SCHORR:

Right. And I know they were trying to have your dad's existing kidney just work for as long as it could as well.

MICHAEL DOLGIN:

Right.

ANDREW SCHORR:

Dr. Abecassis, I wanted to point out that, of course, at your transplant center at Northwestern Memorial we're talking about kidneys, but you also do pancreas and islet cell transplants, liver, intestine, and of course we've been talking about this living donor program.

And I have a question about that. I know there's something called sort of a swap donation. Could you describe what that is?

DR. ABECASSIS:

So the swap applies primarily to kidney transplant. And what it is is let's say that Michael was willing to be a donor but there was a problem where he could not donate to his father for either blood compatibility issue or some sensitization issue, some immunologic incapability where we could not do the transplant. And let's say that there was another donor recipient pair that had a similar problem. They wanted to be a donor but they could not donate to that particular recipient.

So what we have is it's called a paired kidney exchange program. It's also called a swap program or paired kidney donor program, where we would make these two donor recipient pairs aware that the situation occurs as long as the donor from one pair could donate to the recipient from the other pair and vice versa. And then we would let them figure it out and decide whether they wanted to do this. We would put them in touch with each other if that's what they wanted.

And if they came to us and said we want to do this, then we would do a transplant where we would literally take the kidney of the donor of the first pair and give it to the recipient of the second pair and take the kidney of the donor of the second pair and give it to the recipient of the first pair, assuming of course that there were no medical or immunologic issues. And we're not the only center that has done that. That is becoming a growing pattern, a growing practice.

And in fact there is now a movement to making that a national pool for paired-shared donations where we wouldn't just do it at a Northwestern level, we would get together with other transplant centers. Because by doing that you increase the pool of pairs that can't donate to each other, and therefore you significantly would increase the possibilities of swaps.

ANDREW SCHORR:

Okay. All right. We've got a lot to talk about related to other organs. Now, I know you do liver transplants. How does that work and how does it work also between living donors, because I know you don't have to take the whole liver from the donor. How does that work?

DR. ABECASSIS:

So again, liver transplantation is a very successful operation, and like kidney transplants it has become a victim of its own success. And so there are more people who need liver transplants than there are livers from traditional organ donors, and so we have to look at other ways to provide people who need liver transplants with livers.

One of those ways has been to take part of somebody's liver, of a healthy living donor, part of their liver, and give that portion of their liver to a recipient. And this started really in the late 80s with kids because kids don't need much liver. So we would take a little piece of a liver from a parent, let's say, and give it to a baby, a child. Recently we've opted this to adults.

ANDREW SCHORR:

Doctor, what we'll do is I'm going to let you explain this in greater detail after the break. We're going to take a quick break as we now begin to learn about liver transplantation.

If you'd like more information about Northwestern Memorial physicians and services just visit nmh.org.

I'm Andrew Schorr. Stay tuned for more Patient Power on HealthNet, brought to you by Northwestern Memorial Hospital.

ANDREW SCHORR:

Welcome back to Patient Power on nmh.org. Andrew Schorr, here every couple of weeks with a new program on an important topic. We're talking about advances in organ transplantation now, and we have with us the head of the transplant department, Dr. Michael Abecassis.

And we started to talk before the break about liver transplantation. It's just amazing to me how you can take a small piece of liver and donate it to someone and it regenerates. And then it also, the part that you took away from the donor,

that regenerates too. So help us understand just a little more about that, Doctor.

DR. ABECASSIS:

So the liver is the only organ in the body that has the ability to regenerate fully. So if I remove half of somebody's liver, within a couple of months that liver will be back to its normal size. And so in the late 1980s we started to take little pieces of liver away from living donors and putting them into little babies, children that needed liver transplantation, and the results were excellent. In other words, it seemed that this little tiny piece of liver that we were removing was enough to sustain the life of a baby, and it also looked like the risk to the donor was low.

And I was going to say acceptable but that would be wrong, because there really is no acceptable risk to a living donor. And that's a real area of controversy. But, anyway, in the late 1990s it occurred to most of us that if we could do this for a baby then maybe we could do it for an adult as well. And so we began taking the right side of the liver, which is about 50 to 60 percent of the liver, from living donors and transplanting that into adults because that's the minimum amount of liver that you need from an adult for an adult.

So we found that that was acceptable. That there was low risk to the donor and at the same time that the right lobe of the liver was sufficient to sustain the life of an adult. And so we are now in the process of utilizing right lobes, right lobes from living donors and using them on adult recipients. That's called adult to adult living donor liver transplantation. And, again, there was a donor death that occurred in New York, and that sparked a lot of controversy. And I think the community has resolved itself to the fact that there are risks pretty much to any operation, but it's still an area that deserves a lot of attention.

ANDREW SCHORR:

And, Doctor, you're also at Northwestern helping lead the way in other kinds of transplant too, pancreas and islet cell for people with diabetes, intestine transplants. So help us understand the full scope of your program there.

DR. ABECASSIS:

So there are millions of patients with diabetes in the United States, as you know, and there are millions of patients with type 1 diabetes, which means that they make no insulin. And half of these patients go on to develop very severe secondary complications of diabetes including blindness and require amputations. And it really is a dreadful disease of young people, and if you're a type 1 diabetic and have these secondary complications you are very unlikely to make it to age 40 or 45.

So what we do for these patients is we transplant a pancreas from a donor, and basically the pancreas that is transplanted now makes insulin. And it appears that these patients do not get the secondary complications of diabetes, at least as rapidly as patients who are just on insulin.

And more recently instead of transplanting the entire pancreas we have found that just transplanting the little islet cells that make the insulin in the pancreas is sufficient to give the patient enough insulin. And so recently we have started to do islet cell transplants. And the advantage, of course, is that instead of an operation this is just an infusion of islets, and the islets imbed themselves in the liver of the person who's getting the transplant and start to make insulin in response to the ups and downs of the sugars. So this is a very exciting new area in transplantation.

And, finally, there are patients that lose their intestines because of accidents or chronic illnesses such as Crohn's disease, for example, and they can no longer eat. And therefore they have to be sustained with intravenous alimentation. And those patients will go on to develop significant complications of the intravenous nutrition. And so for those patients we now offer intestinal transplantation where we can take a piece of bowel--and we can do this from either deceased or living donors--and transplant that piece of bowel into the patient and essential allow them to eat again and to not require the intravenous nutrition.

ANDREW SCHORR:

Wow. This is just incredible when I hear you describe it and we think about the advances that have happened. Want to fire some questions at you, Dr. Abecassis, because, again, for our listeners when we talk to Dr. Abecassis who really established this program 14 years ago and there's so much leadership and more than 160 people at Northwestern Memorial devoted to this, really one of the leaders around the country. For folks around Chicago, wherever you may come from, tremendous resource to you to really help get the best and as medicine advances to really participate in that.

Here's a question from Summer in Oak Park. And Summer writes, "I read on your website about kidney donors having a laparoscopic kidney removal procedure. What are the benefits to the donor over the old way?"

And I think you described that earlier but pretty much I imagine it's a quicker recovery, less trauma to the donor.

DR. ABECASSIS:

That's correct. The major benefit is really a rapid recovery as opposed to the old way of doing it--and, by the way, I should mention that still two-thirds of transplant centers in the United States today do the donor nephrectomy the old-fashioned way because they have not learned to do it laparoscopically. And, by the way, that's the right thing to do is because the first concern is donor safety. And so you should do it the way that you are best at doing it and the way that is safest for the donor. And if that happens to be open, then that's how we should do it.

In our case, of course, we've done almost a thousand laparoscopic donor nephrectomies and have this very large experience. And the main benefit is really the recovery of the patient. And they're only in the hospital overnight, and depending on the type of work that they do oftentimes a lot of these patients go back to work within a week or two.

ANDREW SCHORR:

Okay. Let's go on. Here's another question. Brigit in Chicago writes, "I'm on the kidney transplant waiting list at another transplant center, and my doctor told me that I would be on steroids for the rest of my life after transplant. I've heard that these can have bad side effects. Do I have to take steroids to get a kidney transplant?"

DR. ABECASSIS:

So the answer is no. Again, about a half to two-thirds of kidney transplant programs in the United States continue to use prednisone, which is a steroid. About seven years ago Northwestern's transplant program decided to become prednisone free, and we do not use prednisone as an antirejection medication in the vast majority of our patients, over 95 or 98 percent. And the benefit to not using steroids is that steroids, as you know, if taken over a long period of time can cause some very significant problems to the patient, such as cataracts and diabetes and bone disease and all kinds of problems. So we chose to avoid the use of prednisone, and so we are known nationally for being a prednisone-free transplant center.

ANDREW SCHORR:

Okay. Here's another question, Todd in Chicago has written in and said, "I have type 2 diabetes. Will a pancreas or islet cell transplant cure my type of diabetes, and how do you determine what kind of transplant you get?"

DR. ABECASSIS:

So type 2 diabetes is typically adult onset. It occurs later in life. It is often associated with obesity or being overweight. And the problem there is not a lack of insulin. It is what is called insulin resistance. So you have enough insulin but your body just doesn't know how to use it. And in those patients pancreas transplantation does not make a big difference. So we reserve pancreas and islet cell transplantations primarily for patients with type 1 diabetes, and those are the patients who cannot make insulin. And there is a blood test that is done called a C-peptide that very quickly differentiates between type 1 and type 2 diabetes.

ANDREW SCHORR:

Okay. Here's a quick one we'll do before the break. Jason from Aurora writes, "I was recently diagnosed with liver cancer. What are my treatment options, and is transplant one of them?"

DR. ABECASSIS:

Yes. So we're talking now about primary liver cancer. This is cancer that starts in the liver and that has not spread anywhere. And the best treatment today is a liver transplantation, as long as the cancer is within certain criteria and that it isn't too big and that it is still under control.

We also offer a variety of very new ablative therapies for liver cancer, either as a bridge to transplantation or as definitive therapy. And these include radio frequency ablation, they include the use of radioactive spheres that are injected directly into the tumor, and they also include the use of something called chemoembolization, where we inject the tumor directly with chemotherapy and then plug it so that the chemotherapy stays in the tumor.

So we have a number of ablative therapies that we're using very successfully now to treat liver cancer. And in fact we've set up a liver cancer clinic within the Lurie Cancer Center every week now where we see exclusively liver cancer patients.

ANDREW SCHORR:

So just before the break, then how many transplants are you doing at Northwestern? You must be one of the very largest centers.

DR. ABECASSIS:

We are. Overall we did close to 500 transplants last year. We did about 140 liver transplants, 140 or 150 livers transplants. About 260 kidney transplants, of which about 150 were live donors. And close to 40 pancreas transplants. And a handful of intestinal transplantations.

ANDREW SCHORR:

Now, we talked about the shortage of donors. Is there something, briefly, that you would urge families to do so that if somebody, let's say, wants to be a donor that should they have an untimely demise or even if they're older that their family knows their wishes and it happens?

DR. ABECASSIS:

Yes, absolutely. I would encourage them to speak to their family and let them know their wishes. You know, many people are under the false impression that if you sign your driver's license that makes you an organ donor. It doesn't. When somebody meets with an unfortunate accident and has the potential to become an organ donor, the law nationally is still to go to the family and get consent. And it doesn't matter what the driver's license says, if the family does not consent you can't use that person's organs. And so there is no substitute for talking to your family and letting them know what your wishes are.

ANDREW SCHORR:

Right. I know I'm going to do that with mine. It says it on my driver's license, but I'm going to tell my family. And if we get time we may see whether we can let people know that you can be much older and still your organs can be used for donations. So even an older person who passes on, but the family needs to know.

Much more to talk about as we continue our discussion on Patient Power. If you want to request an appointment on line with Dr. Michael Abecassis who we've been visiting with, just go to nmh.org. I'm Andrew Schorr. Stay tuned for more Patient Power on HealthNet, brought to you by Northwestern Memorial Hospital.

ANDREW SCHORR:

Welcome back to Patient Power. You know, in the couple of weeks we're going to get into this a little further with Dr. Joseph Leventhal as we discuss advances in live donor kidney transplantation that we've talked a lot about today, but we're going to get into it more. That's going to be at 7 p.m. Central Time on March 27th. So take a look at that as well.

But today we have the head of the department, Dr. Michael Abecassis. Dr. Abecassis we have a few more questions we'd like to fire at you before we run out of time.

This one is from Kelly in Chicago. She writes, "I recently heard in the news that a number of transplant centers have new protocols for patients who are sensitized from blood transfusions. Can you explain what desensitization means and what are the benefits, and do you do this procedure at Northwestern?"

DR. ABECASSIS:

So I alluded to this a little bit earlier. There are patients that need transplants that have developed antibodies to certain proteins or antigens. And so what happens is if the donor happens to have those proteins or antigens, then the recipient, the person that's getting the transplant, has antibodies and therefore we cannot do the transplant because if the antibodies react with those antigens there will be immediate rejection. That's called being highly sensitized. And that can occur as a result of a blood transfusion. It can occur as a result of a previous transplant. It can occur as a result of pregnancy in women. And so there are a lot of reasons why some of us may have antibodies to certain antigens, and so if our donor has those antigens then we have a problem.

So a couple years ago if that was the situation we would have said, Well, you better find another donor that doesn't have those antigens because we cannot do this transplant. Today we have these desensitization protocols. And what that means is that we treat the recipient, the person who is getting the transplant, with certain medications that bring the level of those antibodies down and sometimes makes the antibodies disappear against those antigens so that we can still go ahead and do

the transplant. And we're pretty successful at doing that. So that is a fairly new development, and Northwestern has probably one of larger programs with highly sensitized patients, certainly in Chicago and in the surrounding area.

ANDREW SCHORR:

So we've seen all this progress that you've been describing during the hour. Where are we headed? So when you get together with your colleagues and Northwestern plays a role in sort of advancing the ball, moving the ball forward, what's going to happen? What's your crystal ball?

DR. ABECASSIS:

Well, the ultimate goal--so we face a lot of challenges. The immediate challenge that we're facing is organ shortage. And so one of the ultimate goals is to be able to overcome the organ shortage. And to that end we have been for years now exploring the possibility of using organs from certain animals instead of humans, and there's a lot of research still ongoing looking at pigs. And there are now genetically manipulated pigs that have become humanized in terms of some of their genes that are being tested to see whether they would successfully be able to provide organs.

ANDREW SCHORR:

Right. And there are pig valves that are used in heart procedures, correct?

DR. ABECASSIS:

You're correct. But tissues are very different from organs. A valve is a tissue, and there's no blood--there's no interaction between the tissue and the blood, in contrast to an organ that has blood flowing through the blood vessels in the organ. And you're right, we can use pig valves because they're tissue and there's no immune response. The person does not have to take any anti-rejection medication or anything. That's a little different than using organs from pigs. But there's a lot of research going on in that area. So one of the hopes is that at some point we'll be able to obtain organs from nonhuman sources and be able to do that.

Before we get there there is also a lot of research going on to try to expand the donor pool from humans. There are some organs that we don't use because of quality issues. And there's a lot of research going on to try to make those organs work better and therefore be able to use organs from humans that we're not currently using.

ANDREW SCHORR:

Now, I mentioned before the break about how I believe you all have agreed, the centers, about extended criteria, I think you call it, so that you can now accept organ donations from people who have died that are much older. So the 80- or 85-year-old person who died where the kidney is still pretty good might still have a use, right? Maybe you could explain that.

DR. ABECASSIS:

So that's one of the examples of trying to expand the current donor pool. And there are ways that we're looking at to make those organs work better. But also there's a movement afoot nationally to try to match donors and recipients in terms of age, so for example, if you have an 80-year-old donor and you take that kidney, and let's say it's a great kidney, it's still an 80-year-old kidney. You would not want to put that kidney into a 15-year-old or a 20-year-old. But you might want to put it into somebody whose 75 years old who needs a kidney transplant with the assumption that a 75-year-old is not likely to live as long as a 15-year-old, and therefore they may not need that kidney as long as a 15-year-old would.

And there's a national allocation policy committee right now looking at that question, that maybe these ECD kidneys ought to be going to older patients rather than to go to the first person on the list who might be a five-year-old or a ten-year-old. And so a lot of research going on in that area.

ANDREW SCHORR:

Well, it's clear that you in the field are doing everything you can to try provide organs to people who need it when there is a shortage. But as you said earlier, it's the living donors who are the heroes.

So Michael Dolgin, I just want to congratulate you again for what you did for your dad, Jay. I really want to thank you and I know the doctor joins me and your wonderful example. Michael, we wish you all the best because being a living donor, as the doctor said, you're quite a hero and exemplary. While we have this shortage then it's folks like you who really make a difference. And I know you gave your dad a tremendous gift.

MICHAEL DOLGIN:

Well, it was not hard at all, and I wanted to elaborate. We talked about the process of getting into it, but the actual surgery itself and the recovery time, by doing it laparoscopically - I didn't realize that so few - I just assumed that all of them were done that way now - but to do it at Northwestern and be able to do it that way the recovery time was great. I played golf I think eight days later, against doctor's recommendations, but the truth is the recovery time is fantastic, and you bounce back quickly. And you don't, here it is years later and if somebody doesn't tell me about it I don't even think about the fact that I don't have another kidney.

ANDREW SCHORR:

Well, good for you.

MICHAEL DOLGIN:

Works fine without it.

ANDREW SCHORR:

Our hats are off to you, sir.

Dr. Michael Abecassis, really, you must feel very proud of your center, and I think it's a real jewel. I'm proud to be able to do this program with you because I think Northwestern leads the way. We wish you all the best as you push that research forward, sir.

DR. ABECASSIS:

Thank you very much for having me. And I think you're doing wonderful work in spreading awareness about organ donation in general.

ANDREW SCHORR:

Okay. Well, as I said we'll have Dr. Joseph Leventhal with us in a couple weeks, and we'll talk specifically about living donors.

So you folks have been listening to us do our Patient Power program today on transplantation. If you want an appointment with Dr. Abecassis, just visit nmh.org. All the information is there for you.

I'm Andrew Schorr. You've been listening to Patient Power on HealthNet brought to you by Northwestern Memorial Hospital.

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