GLP-1 Drugs: Insight On Usage & Effects Transcript

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Introduction and Guest Welcome

Well, welcome to another episode of reversing Type 2 Diabetes Summit 2.0 than on your co-host, Dr. William Hsu. Today, I had the pleasure of inviting Dr.

Baliga a renown endocrinologist and a friend of mine, just to talk about the diabetes landscape, especially in the Deep South. There are so many challenges with the community in terms of diabetes, obesity.

And this will be an episode, hopefully will be eye opening for you, for your friends, for your families. And maybe you live in that region of the country.

It could be also very, very educational as well. So, Dr. Baliga, welcome to this summit. Thank you for taking the time out of your busy practice schedule.

I know you just finished and finished seeing quite a number of patients today. So tell us a little bit about who you are, your passion, your background.

Yes, thank you, Dr. Hsu So it's it's really a great pleasure to be part of this great program you're putting together. As you know, we are all in fighting down deep down in the trenches down here.

Right. And my journey started a long time back. I'm originally from southern India, a place called Punjab. And growing up, I saw my own dad, my grandfathers, my uncles, my teachers, almost half the people in one trial, they had diabetes.

And I could see that suffering, people having a heart attack all that time.

Dr. Baliga's Background and Medical Journey

We did not make any connection, but we saw people losing their eyesight, losing their feet. It was pretty troubling. So once I became a doctor in Kosovo, when my study was done in Manipal, what we call Kasturba Medical College, and I did my initial MBBS training.

Following that, I did a postgraduate fellowship in internal medicine. Then I went down to a small place called Mourvedre. It is. It's a picturesque, hilly area infested with the Cobra snakes, and it built up a ninth cobra bite center where we take care of it, took care of everything.

Then, after spending about five years in that area, then I went down to study more and I thought that something is missing. I needed more training. So that took me to England.

So initially I was in Cardiff area Wales area then I went to Royal Liverpool University Hospital where I did my regional rotation and the reality itself was a great experience.

You know, the English training is really good. You become much more a faster, more intelligent, much safer doctor. So then my journey brought me down to United States, rightfully so.

And initially I went to Little Rock, Arkansas. Then I did my fellowship again in endocrinology. Then I did my telemedicine rotation for a couple of years to satisfy all the legal requirements.

Then I moved to Mount Sinai in New York, and that itself was a great experience that I quickly moved up for a brief time. I was a director of the diabetes program at the Mt.

Sinai. Then fate brought me down here to the south So now I'm currently here in Columbus, Georgia, and Opelika, Alabama. So when I look at it, you know, I always believe in destiny.

And for some reason I was brought here and I know why this is my calling. I see a lot of patients with diabetes and obesity. When patients come to see me in my office.

And it's really heartbreaking because they have been running around several places and uncontrolled diabetes typically when they come home, they have weight issues.

They have A1C of 13, 14% that glucose talks with the blood sugar of 400 and 500 is really heartbreaking. So but you know what? I would want our to realize that diabetes is a complex disease, as we all know.

One of the challenges that we face down here in the South, what are unique. So thank you for that very you start off with a personal story about your family being impacted by the diabetes.

It's not only a problem that we face here in the U. S., but it's actually a global epidemic. And studies have shown that more than 50% of the new cases of diabetes actually come from the Asia Pacific Rim.

And so certainly the US being a country where there's so many different populations that have come to the U. S. to to to live and to raise families there, also experiencing Type 2 diabetes.

So a huge kind of the personal touch, why it kind of drew you to this field. Is there anything else in your decision? You have vast choices in medicine.

Why endocrinology? Why diabetes per se? Exactly. That's a very valid question. So sometimes I ask that question myself, right? Because when I left India and I went to England, I wanted to become an endocrinologist.

The fate took me to one of the prestigious rotations, Regional rotation in the Merseyside from Royal Liverpool University Hospital, and out of 12 doctors who attended the interview, there was one position and I got it.

So I thought, Oh man, I should be so good enough in taking care of diabetes patients.

Why Endocrinology and Diabetes Matter

But going back to my roots I still remember it was a very traumatic experience when my dad was a diabetic and you are only on sulfonylureas at the time you heard it.

So first, how did I at the age of 45 and he had a sort of cardiac death at age 55. Wow. In those days, we did not connect to diabetes and cardiovascular disease and our knowledge was only minimal.

And what we did wasn't enough. So I lost my dad. So that's why when I see my patients, I'm always reminded about what happened to my own family. When I see my patients.

You know, I'm a good diabetes doctor. I can take care of them. But in the back of my mind is how am I going to prevent this person from having a heart attack stroke and the sort of cardiac death that makes me and that keeps me on my toes all the time, because we cannot, like, you know, take it very lightly. Right?

This is a serious disease. It is a Widowmaker disease. And the implication for the entire family is tremendous. So given that now we're seeing about 15% of us adults now suffering from diabetes, either type 1 and Type 2, it is actually quite prevalent.

I mean, I think all of our listeners can identify either a friend or a family member living with Type 2 diabetes. But this is a good day. This is a day where there's no such thing as a good day to have any disease.

But compared to 100 years ago when we didn't have any tools, now we have more than 12 different categories of

diabetes medicine. There's also innovation in in lifestyle medicine where one has tried to drive diabetes remission.

So Dr. Baliga, I saw today what we would ultimately what we will cover is sort of the the exciting drugs that everybody talks about. Everybody is hearing the GLP 1 agonist the SG or T2 inhibitors.

Can we maybe walk through the different options patients have when they come to see you in the office? Let's start with the GLP 1 agonist. What is it and how do you use it?

Do you hear patients wanting that drug? What are the benefits and side effects and and considerations? So my fascination with GLP 1 and last started a long time back in 2005, 2001 when I went and joined Mount Sinai.

So I had the great privilege in meeting Dr. Ang who discovered the GLP 1 analogue So the story is one of Dr. Ang He is a bench researcher so one of his friends brought him saliva with the heat globemaster from Arizona desert and told him, Hey, John, look at this.

You know, it has some medicinal property and he was tinkering around it. And then he says, he said GLP 1, the glucagon molecule initially. Then he clears out the GLP 1 portion of it.

Then when he starts injecting into the hamster contract, the diabetes disappeared within 30 days. So he's the one, if I am right, he's the one who coined the term glucose mediated insulin disease.

Right. So eventually he sold it rights to Amylin, He made a lot of money. But the thing is, what it did to the community was like really great.

GLP-1 Medications and Who They Help

In my belief he should be given a Nobel Prize because what we see this has become a mainstay of diabetes management because the problem we come across in treating our patients with the type two diabetes, Of course in the initial stages you can do the lifestyle modification, diet and exercise, but only a portion of our patients are willing to go with that strategy.

That means we need medications. So, you know, in initially we can try metformin and sulfonylureas, but now that the guidelines are changed, we if they're individualized therapy.

Right. So let's say somebody with type two diabetes with underlying coronary artery disease. So they are more likely to get more benefit out of a GLP one than somebody with underlying congestive heart failure and a chronic kidney disease.

They are a good candidate for SCA receptor blockers. So so our listeners wanted to hear like the view from the trenches. Right. And that's kind of the academic target, right?

So, so so tell us what type of patients ought to be looking for GLP one as, as a potential therapy and are there kind of patients that this class of medicine may not be optimal for them? Yes.

So the ideal candidate for people, the Type 2 diabetes and obviously will have obesity, that's part of their problem. So they are a very good candidate.

All right. Because what we've seen time and again, if we devise a therapy plan for our patients, if they lose weight, they become more insulin sensitive, then medications work better.

If they gain weight, then it's an uphill task. So people with, you know, overweight, obesity, class one or two or moderate obesity or obesity, Class three, they are really ideal candidate for the JLP won and lost because they are the most powerful agents so far.

We have in helping our patients to lose weight. Right. Their candidates that they are not that they're not a good

match for the GLP one agonist. So thin patients, they may not be a good candidate for people with a lot of GI symptoms.

You know, somebody who's having sensitive stomach, having nausea, vomiting all the time, and people with gallbladder disease that often not good candidates.

But most importantly, if there is any history of pancreatitis for any cause, it could be alcohol related, it could be gallstone related, it could be drug related.

Any previous history of up pancreatitis? We typically do not get well GTP one analogs. I want to be fair with in the history of cancer of the thyroid in the family, which is very rare do that so I'm not worried that much about that.

So I want to be fair here because there is so much buzz out there about this class of drugs, right? So like in your clinical practice, when you you give me all this list of of of patients, but what are some of the side effects that that concerns you about this class of drugs. Okay.

So most of the time when I offer this drug to the patients, these are some of the points I actually remind them. One is GI side effects, right? So feeling full nausea, vomiting, diarrhea.

But nowadays we see a lot of patients with constipation. And recently FDA brought out a warning about ileus where use in into stain doesn't move at all.

So we have to watch out for those GI symptoms. Now those those cases the slowing down on the on the gastro and other are they permanent Once there are JLP ones.

They're not permanent. But if what I typically do is let's say you start a patient on a day to prevent an illness and it's a given that they are going to have some degree of gastroparesis because that's one ongoing mechanisms.

But as long as it doesn't interfere with their day to day functioning and let's say somebody gets so constipated, so or somebody with so much of abdominal distension and they don't feel good, So then we usually back off on the dosage, Sometimes that helps.

Instead of stopping completely, you can stop for a couple of weeks. Then when you restart, you start at the smallest dose on a longer period and hope that they get used to it.

Now there's also some reports that GLP one may be associated with muscle loss, which is because they lose a lot of weight, but also not only lose fat but also lose fat, fat plus muscle.

So is that a concern on the clinician's mind? Obviously, that's you know, what we call is a sarcoma clinical obesity. So that's why in our in the weight loss clinic we and we try to help them to build up their muscle mass also saying, oh, my computer screen went black so I'm back again.

So the other side effect of a GLP one analog, which we don't talk about much, is an annual malartic edema. I've seen one patient in my entire life who was initially in.

I came into the market. One patient had to create a and yet an erotic element. So we just recommend if any allergic reaction to stop it. So. Okay, what does that look like for our audience?

And so these are the patients. They start having what we call in urticaria a rash like raised in directed area, which is itchy. Then suddenly they will see the swelling around their lips and tunnel.

Then they will find difficult to swallow. This is a medical emergency. Then they have to call 911 and go to the emergency room. Fantastic. Now back to kind of the population that you you care for in your neighborhood is a class of drug like the GLP one popular choice.

Do insurance cover? What do they have to think about it? Yes, patients are actually much more receptive to the idea of GLP one analogs, especially nowadays.

There is a lot of television coverage on Ozempic and Mongiardo. Patients are sort of primed because they're, you know, all these theories. They've seen their friends in the church and there's a lot of dialog going on in the community about the deal beyond analogs.

So what I've seen is when I offer this treatment, because then I say these are the drugs, they are injectable therapies, but they are not insulin. They like that.

And we tell them that it's a once a week administration. They'd like it much better. And when I tell them that it can help you to lose weight, that's what they need in a lot of my patients because all through their life they've been struggling with this weight issues.

Right. And I tried to tell them, don't worry too much about the weight, because weight is the number. I'm not worried about the cosmetic appearance of a person as long as we keep these patients as safer, healthier, so that they can live longer.

Right. So that sort of agrees with them, because when they come to see me, if I talk to them all about the weight, they get frustrated because there's a you know, they had this problem all their life and people being judgmental think that, oh, you got away.

Video shows their family and their friends and their spouses. So when they come to the doctor's, not that every time they want to talk to us about their weight.

So we have to be very careful as I typically try to find out what is their perception about their weight before I pass some judgment and give them weight loss plots.

Right. So that's why when I talk to them, it's all about controlling their diabetes, changing their lifestyle and show them data what works and what doesn't work.

For example, I tell them if you keep on gaining weight, you're in trouble. All right, now you're sugar fat, 300, 400.

GLP-1 Side Effects, Brands, and Oral Options

So from today onward, once I start treating you, you should see this number coming up to the safer limits. And I give them goals. This has to be your fasting glucose.

It has to be postprandial glucose. If those goals, they like it. I don't tell them about weight that much. The medicines that I give you, I make sure that the patients will start losing some degree of food.

Then don't replace 50 or £100, even losing £5, £10. Make them very insulin sensitive. You know that, right? Yeah. So to believe that there's been also some confusions right in the in the lay public there are so many different names for these GLP one receptor agonists.

Right. There is one for diabetes, one for weight loss. But they have different names When they have this, they seem to have the same compound. And then there is the injectables and there's also pill form.

Could you just walk us through little bits that our audience can can to understand the options? Yeah. So one of the oldest digital pure and analog CS, we write Liraglutide so Actos is meant for people with the Type 2 diabetes and the same thing is available in the form of such center.

These are like daily injections of DL beyond analogs. So what if a person doesn't have diabetes? You cannot give us referrals, but you can, you know, we consulted with controllers, but in typically if you had a diabetic, you can get baked Rosa because it's indicating if you're not diabetic but dehydrate issues, then you get suctioned.

That's a daily injection. And that's all because of the FDA indication. So at this minute. How the companies are a for indication when they did the clinical trials with the FDA.

Based on the clinical trials, FDA gives them the permission to use this particular brand so that there's not much confusion coming back to the Semaglutide molecules.

For example, Ozempic is a very popular right meant for people with Type 2 diabetes. But if your person does not have diabetes but they have a BMI, say more than 27 with the one is greater or more than 30, they can have wegovy, which is just like Ozempic.

But again, it's a weekly injection. So those are just slightly different than the now we have them one zero, which is at Zabadani, which is a combination of GLP one and a GAAP.

Again, recently FDA gave them approval for a drug in the name of that bond that's meant for people with weight issues who do not have diabetes. So that's that's the most of the drugs that we use in the database.

Yeah. Yeah. Then we have a Trulicity again. It's a once a week injection from Lilly for going to meet the people with Type 2 diabetes. Then we have by Dorion.

Nowadays we don't use it that much. It has fallen out of favor. So these are the logs available at the moment. So and I mean, as I alluded to earlier, there, there is an oral pill of, of and there is an injectable form and the how do you choose as a as a physician to go with injectable or pills?

Are there differences? Yes, It's a you know, when you interview the patient, you sort of know what is going to work for this patient. Some people, they're aware they don't want to take any injectable kind of experience because they have heard in the long time back.

You know, if you go on insulin, it's sort of like you it end right so that the stigma is still there. So some people very adamant saying that not I'm not going to take any injectable therapy.

Fortunately we have ribosomes which is the same ozempic as semaglutide molecule. You take it by mouth early in the morning, so you start with the three milligrams, then you go to seven milligrams and go to 14 milligram.

Do they work as well? The pills verses impossible. Yeah. It's reasonably, you know, it gives a good result but in my own experience probably I will go with Ozempic under.

Having said that, now that there is a sort of like a shortage of for example, then I can put them on the right boxes, you get almost the similar effect.

But the thing is you have to take it first thing in the morning with the four ounces of water should not eat anything and they eat breakfast after 30 minutes.

So there's certain rituals with that and possibly maybe some people complain of nausea. But in general, most of the nausea induced by Gilpin and a lot that initially when you start the therapy, they start having nausea, but later on they get used to it.

But again, when we escalate the doors, they can have another brief period of nausea. But we'll see. What eventually, if they stick with it, the nausea able to disappear.

So so clearly, this is by far the most talked about therapy. But let's not also forget, there are so many other tools clinicians can help about to go to the opposite side in the rest of our interview here.

And that is the lifestyle, right? So I think everybody still recognize that. Yet drug can play a role, but lifestyle intervention is still a key factor because I remember when I when I see patients, I always say, you can always I'll eat whatever I prescribe, right?

So they can always outdo the most powerful drug. If there's not a will to change. So I'm thinking in your mind what kind of interesting, innovative approaches are you seeing out there that's emerging or that's taking mainstream in the lifestyle area?

Lifestyle Medicine and Weight Loss Strategies

Anything? Yeah. So in general, all these weight loss therapies, there were kind of couple of principles. So when he's restricting the calories. Right.

And the other thing is you have to add exercise to that program. Then you have to come up with a plan that won't likely to add up for a longer period of time because we know have known that doing that yo yo dieting is not good for the body.

And I so it's a long discussion. That's why we get our nutrition is in all the CDs in order and we talk a lot of things about lifestyle modification, diet and exercise.

And really with it we talk to them about that. Then the question is, because there is so many sort of diet programs out there and patients get overwhelmed and confused.

So the question is then we are always on the lookout for what is good for this particular patient, because we know that one particular diet doesn't treat everybody right.

It's the perception of diet is different. That cultural nonsense. So we have to be careful in what we offer. So what do we do? We have to understand where the patients come from.

The second thing is, are the patients willing to adopt? Do they feel good about it so that they can stick to this diet plan for the long period of time?

And what are the things what we have done is when patients come, we talk to them about the science behind the strategy. Any diet we are going to talk about.

You can talk about ketogenic diet, you can talk about Atkins diet, Paleo diet, regardless of whatever diet they're talking about. The question is, do they understand and what are the good things about the diet?

What are the bad things about goodbye in order? The current therapies to have, for example, somebody who is on insulin therapy suddenly decides to go on a prolonged fasting diet.

What about like intermittent diet? They don't eat for 15 hours, then they can go into severe hypoglycemia. But that's why we recommend if they go in any kind of extreme of the diet, they should always call us so that we can keep in mind eye on that.

So typically these are the patients we put them on a continuous glucose monitoring device and we even remotely monitor them to keep them safe. So help us understand a little bit about you have a weight loss center, you are doing some creative things.

And what elements of lifestyle medicine are you cooperating into, into the practice for your community? Yes. So initially we we just opened like about three or four months ago and we typically first bring the patients in and look at their biochemistry.

We look at their insulin resistance. We want to see whether they have underlying Cushing's syndrome or that they have subclinical hypothyroidism. So if we make sure that the physiology is finally to just the insulin resistance, then it becomes easier for us to move forward with the diet plan.

But if they have a critical diseases like subclinical or frankly hypothyroidism, unless we correct them, they are not going to lose weight. The same thing, Cushing's syndrome very, very rare, but we do overnight a dexamethasone

suppression test as a screening tool and we have got a few subclinical Cushing syndrome patients.

Then we have a we look at lipid panel, we look at their active protein, we look at the inflammation because we know diabetes is an inflammatory disorder.

So we look at the underlying inflammation. Then we have a couple of machines. One is bio impedance machine so that we can look at all the parameters inside of the body and look at that bone mass fat man and muscle mass.

Then we also have a machine which is an indirect medium so that we can find out while at rest how many calories burned. So this is how we see the patient in total rather than like a cookie cutter plan, put everybody on the same so-called diet plan.

So we are always on the lookout. And and it is so nice to meet a pioneer doctor like you. And when you came in, met with us and talked to us about the neutral diet, I was really impressed because for the first time I see a diet with a scientific basis behind it.

I'm not saying others don't have it, but what you have it really, you know, impressed me because, you know, you were in such a high position in Joslin and you left that.

And, you know, you are spearheading this this new program. And we likely likely it's going to be a groundbreaking is going to change the paradigm of diabetes management, lifestyle modification, so-called diet.

Well, thank you, Dr. Baliga. We'll on another other episodes of of this series, we'll talk about using the fasting mimicking diet as a way to reverse Type 2 diabetes.

Thank you, Dr.

Community Practice and Diabetes Technology

Baliga for for really being a pioneer in this space, right? The conventional training but very astute mind that wants to always look out for the best information for your patients.

Let's end by talking a little bit about your passion, your passion for your community. I know there aren't that many endocrinologists in your neighborhood tell us a little bit about the kind of the practice setting and the patients in the community and what do you want to tell them as a physician caring for so many?

I think you have over 10,000 patients and many of them have Type 2 diabetes So as we discussed in the past, you know, so I'm here deep down in the trenches, I'm with my patients, I'm fighting for them.

And in the old days, you know, all this newer, innovative stuff happen outside in bigger cities. And my my passion dictates that I should work for my patients down here in the trenches instead of me going to Toronto or D. C.

or New York or Los Angeles. Why can't we do all the things down here in the trenches? Right? That's why whenever I see some newer things, I'm the first one to bring it to our community and the challenges we face is a lot of patients with type 1 diabetes, Type 2 diabetes, obesity, underlying cardiovascular disease, congestive heart failure, stroke, chronic kidney disease.

And there are not enough endocrinologists like me. So that's the reason I have two main offices, one in Columbus, Georgia, one in Opelika, Alabama. Then I have a remote centers in Athens, Georgia, and Lagrange, Georgia.

And recently there is some work going on. And then we can establish another unit in Atlanta. So that's why I use a lot of chronic care management, remote patient monitoring tools.

We use all the newer sensor technologies. We use a Libre the Dexcom and we use Eversense implantable sensors. By the way, we were the first in the country to implant eversense in this small community.

So because that's what I think, you know, we have to bring the best of the best technology based on the best ideas into the community so that we can do something called population health management instead of focusing only 50 patients.

I want to expand a lot of patients in this umbrella and give them resources so that they understand their diabetes. They get their medication from their insurance companies, and we end up doing a lot of proprietary patients because it's it's a lot of work for us.

But we do it because we realize that bringing that extra minutes of time with the work for a patient, hopefully they will live longer. So Dr. Baliga, a physician driven by passion and excellence and down in the trenches, really taking care of their patients with with the most updated science and tools and and that's available to to him.

Closing Remarks and Contact Information

So Dr. Baliga if our listeners wanted to find out more about your clinic and about your practice, how can they find you? Yeah. So my practice name is East Alabama Endocrinology P. C., and our telephone number is, 3347372737.

And we have a website East Alabama endocrinologypc.com So you can check on that or you can also check drbaliga.com So that will be some resources for you.

Dr. Baliga what a pleasure to speak with you and keep up the good work and hopefully one day we not only will manage diabetes but we can reverse Type 2 diabetes and and our listeners I just welcome you to check out other episodes in this in this series and where we have we'll have an opportunity to interview other physicians and innovators in the diabetes space like Dr. Baliga Thank you.

Dr. Baliga Thank you, Dr. Hsu Appreciate that