

Transcript Details

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Difficulty with Diabetes: Strategies to Overcome Challenging Cases

Dr. Anderson:

Welcome to Diabetes Discourse on ReachMD. I'm Dr. John Anderson, and joining me to discuss a difficult case in diabetes are actually two of my fellow hosts for the series, Dr. John Buse and Dr. Carol Wysham. John, would you like to introduce yourself?

Dr. Buse:

Sure. My name is Dr. John Buse. I'm the director of the Diabetes Care Center as well as the chief of the Division of Endocrinology and Executive Associate Dean for clinical research at the University of North Carolina School of Medicine in Chapel Hill.

Dr. Anderson:

Thanks, John. And Carol, would you like to tell our audience just a little bit about yourself?

Dr. Wysham:

Yes. Hi. I'm Carol Wysham. I'm a clinical endocrinologist in Spokane, Washington who has a special interest in diabetes, 34 years of practice, and am the incoming President of the Endocrine Society.

Dr. Anderson:

Great, thanks both of you. So let's just dive into the discussion.

I'm going to open this with a case that actually happened pre-COVID earlier this year, when a patient came into my office for a routine physical. She was a 62-year-old, African American female, who really didn't have much in the way of medical illnesses except arthritis of the knees, and she hadn't been seen for about 18 months. When she came in, she was really proud of her weight loss of about 18 to 19 pounds. The next morning, I got her lab work back that showed a glucose of 375. I added an A1c to her lab work, and her A1c was 12.7. She had no anion gap. She had no ketones. Now, this is an African American female who has a BMI of about 36 or 37. Got on the phone with her, and sure enough, she's got polyuria, she's up urinating seven to eight times a night. She is thirsty, she is fatigued, told me none of this during the physical exam. So now the conversation becomes what do you do next?

So Carol, I'll toss this to you first. How do you talk to the patient, and what are the next steps that a primary care physician should be thinking about when you're managing a patient like this?

Dr. Wysham:

Yeah. Well, I think in general, when you have a patient who has extraordinarily high blood sugars, this high of an A1c, first thing I would do is talk to her about her diet, make sure she's not quenching her thirst with soda because that can make a huge difference just by substituting water and getting her rehydrated. But assuming that's not the case, then you've got to provide insulin for this lady. And generally what I do is start them on a basal insulin with a rapid-acting insulin that they take according to blood sugars, as well as obviously dietary instruction. And I would probably start this woman on metformin at the same time, if that's not essential, but I'm assuming she's type 2. If in doubt, I would do a C peptide just to make sure. But then I would try to get her blood sugars down and then start discussing with her the options for medications that might fit into her lifestyle better, such as a GLP1 receptor agonist.

Dr. Anderson:

Right. So, John, let me ask you, you know, you have a 62-year-old patient, I think most primary care providers don't think about a possibility of a type 1 in an overweight 62-year-old. Do you still see this in clinical practice?

Dr. Buse:

Yes, absolutely. And I would actually go further than that. There was a case series from the Mayo Clinic 20, maybe even 30 years ago, that showed that people who present with weight loss and particularly people who present with ketonuria is pretty common. And so overall, in this ethnic group, this age group with the obesity, you would definitely be thinking about type 2 diabetes. I would have type 1 diabetes pretty high on the differential diagnosis and getting an anti-GAD antibody would help direct you in that way. The C peptide could be normal. And the patient could have type 1 diabetes early in the course of the disease. We know it's not going to be zero because she doesn't have ketoacidosis. And remember, it's about 5% of people presenting as adults, even in their 70s and 80s, actually have type 1 diabetes that tends to be more slowly evolving.

Dr. Anderson:

So Carol, what do we know about measuring C peptides in the setting of glucose toxicity? Are they accurate? Or will they change over time once this patient's glucose toxicity resolves?

Dr. Wysham:

That's a very good question. I think it's highly variable. I've seen people like this and I checked their C peptide. And it's above the upper limit of "normal." I've checked people who clearly had type 2 diabetes and their C peptide was below the lower limit of normal and they can change. Yes, I have had folks whose C peptides more than doubled once we got their blood sugars under better control. But I would say in general, they don't change much.

Dr. Anderson:

Right. So in this case, her anti-GAD antibodies were negative, her C peptide was in sort of a mid-level range, not high, not low. Certainly, there was detectable c peptide. And Carol, to your point, she was eating a lot of sweets; she had a lot of cake and candies, and she had a lot of what that Southern delicacy is, which is sweet tea to the tune of about four 10-ounce glasses a day. So it's clearly contributing to her glucose toxicity. So given that, John, what should a primary care provider be thinking about here?

Dr. Buse:

Yeah. So now that you have the antibody tests, and assuming that you haven't started her on insulin, it is possible that she has type 1 diabetes. About 30% of people with type 1 diabetes will have a negative anti-GAD antibody. The thing that doesn't quite fit for type 2 diabetes is the fact that she's lost weight despite eating all this junk. But I have had patients who just taking them off sugary drinks and the cakes and candies have a remarkable reversal. It would make me nervous still because of the weight loss, and I probably would start her on insulin just out of caution.

Dr. Anderson:

Okay, so, Carol, your thoughts on this patient? You've talked to her about therapy, I asked for her to see a dietitian. She was willing to get rid of the sweet tea and change her diet. So we still have to rescue her from glucose toxicity. And I think both of you would agree we need to start on insulin in some form or fashion. Correct?

Dr. Wysham:

Correct.

Dr. Anderson:

NEW mid-tag: Okay, so for those of you just tuning in, you're listening to Diabetes Discourse on ReachMD. I'm Dr. John Anderson, and today, I'm speaking with Drs. John Buse and Carol Wysham about a challenging case I recently saw in my practice. So if we continue on with our patient case, I made the decision to not start her on metformin.

I actually started her on iGlarLixi so that she could have some postprandial coverage and basal insulin coverage as well. And I saw in two weeks she was already titrating the doses and her glucose toxicity was going away. We also got her meter and strips to start monitoring glucoses. And then we saw her back in a month and then again at three months. At the two-week part, because she was tolerating the medication relatively well, I sprinkled in a couple of tablets of metformin. One of the reasons I didn't want to start metformin at the beginning is just because with the GLP1 receptor agonist on board, I didn't want to have to confuse where any kind of GI distress was coming from. So that's what I did. And obviously, we could have done a whole bunch of things. But I think the key teaching point here, John and Carol, is that this patient needed hit started on insulin, correct?

Dr. Wysham:

Yeah, I still think insulin is the best answer by far, but if the patient absolutely refused injections, you could consider high-dose sulfonylurea and back that off as the glucose toxicity reverses.

Dr. Anderson:

Right. Okay, so I think the other point here is there has to be touchpoints, you have to have data, you have to have information, John,

right, before you see a patient back for a routine visit three months later?

Dr. Buse:

Absolutely. And with our learnings through COVID times, this would be a great patient for even doing a video visit. I've been doing a lot more sort of two-week, four-week follow-ups in patients that historically I would have seen every three months when there's opportunities to tweak things and make sure people are on track.

Dr. Anderson:

That's a great point, because we did actually see her for a telehealth visit before we brought her back at the three-month mark to really assess where she was. So at the three-month mark, she's taking her metformin twice a day, she's on about a half-max dose of metformin. She had titrated, all the way up to 55 units of the iGlarLixi combination. Her fasting glucoses were in the 90 to 110 range, and her A1c was 5.9. So at this point in time, clearly, we've rescued her from a glucose toxicity. She had only gained back about 3 pounds because of changes in her diet and the addition of both the basal insulin and a GLP1 receptor agonist. It was at this point that it was time to start backing down on the coformulation, given the fact there her A1c was at 5.9. Any other thoughts on this case, before we finish this up, Carol or John?

Dr. Buse:

I just say, you know, keep in mind this woman still may have type 1 diabetes. So it's just something you have to keep in the back of your mind moving forward. And if she starts losing weight again, or her blood sugars rise, reassess and keep it in mind because she did present with weight loss, which would be highly atypical for regular type 2 diabetes, eating a bunch of cakes and candies and drinking sweet tea.

Dr. Anderson:

Very true. Carol?

Dr. Wysham:

Yeah, I would just say that in my clinical experience, and I've had patients who I've diagnosed type 1 diabetes long after they presented with run of the mill, "type 2," and my clue is if they just start running through their medication, it's not holding them as long as you think it should hold them. Or they suddenly get much worse and there's no explanation, I start thinking about the possibility of what we call LADA, or latent autoimmune diabetes of the adults, which would be the adult-onset type 1.

Dr. Anderson:

And I think that's a great point because when you see something changing, and you don't have a good explanation for it, I think there's a tendency to just assume the patient's either not taking their medication or they're eating poorly, instead of maybe taking that next step and saying, Okay, what are we missing here?

But that's all the time we have for today, so I want to thank you both for joining me to discuss this patient case. Dr. Buse, Dr. Wysham, it was great speaking with you today!

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Dr. Wysham:

Thank you, John. It was great to be here.

Dr. Buse:

Thank you.

That's all the time I have today, but to access this episode and others in our series, visit reach-m-d-dot-com/DiabetesDiscourse, I'm Dr. John Anderson, thanks for listening.