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Contraceptive Counseling in the Era of GLP-1 Therapies

Dr. Ramnarine:

This is *Advances in Women's Health* on ReachMD. I'm Dr. Shelina Ramnarine. Today, I'm joined by Dr. Halina Yee to discuss practical approaches to contraceptive counseling in women who are prescribed GLP-1 receptor agonists. Dr. Yee is an obstetrician-gynecologist affiliated with UCLA Health. Dr. Yee, welcome to the program.

Dr. Yee:

Thank you so much for having me, Dr. Ramnarine.

Dr. Ramnarine:

Well, let's jump right in, Dr. Yee. GLP-1 receptor agonists have become increasingly common in the management of obesity, diabetes, and metabolic disease. So what should clinicians consider about how these medications affect gastric emptying, and why does that raise concerns about the reliability of oral contraceptives?

Dr. Yee:

Yeah, thank you so much for your question, Dr. Ramnarine. The GLP-1—or glucagon-like peptide one—receptor agonist medications are gaining popularity at an astronomical level in the United States, especially among reproductive-aged women. It's hard to really estimate how many reproductive-aged individuals are taking these medications or have ever taken these medications, but we estimate that as high as 20 percent of women aged 18 to 50 have a history or current GLP-1 use.

And they are such an effective form of weight loss and metabolic therapy because they work in a variety of ways. First, they stimulate some insulin secretion from the pancreas, so post-meal blood sugars remain low. They also work directly on the brain to reduce the sensation of hunger. And lastly—and probably most relevant to us—they really strongly inhibit gastric emptying. And what this does is it contributes to a feeling of fullness.

And when thinking about delayed gastric emptying, there's a consideration for how this affects medications that rely on absorption through the GI tract—so pills—and how these really powerful agents like GLP-1 agonists affect pill absorption in addition to food absorption. And so for myself as an OB/GYN, and for other healthcare providers, I think most pertinent in my day-to-day is thinking about how this affects oral birth control pills or oral contraception.

Dr. Ramnarine:

So when we're discussing contraceptive effectiveness in patients taking GLP-1 therapies, are there particular situations—such as treatment initiation, dose escalation, or the use of specific agents within the class—where clinicians should be especially mindful of potential concerns?

Dr. Yee:

Absolutely. As stated earlier, the effects on gastric emptying are profound. For example, someone without any GLP-1 use only has about five percent of gastric contents in their stomach after three hours. Those with a GLP-1 may have as high as 60 percent of their gastric contents that still remain.

And so this effect on gastric emptying, as well as other GI side effects—we also think about nausea and vomiting in the context of taking a medication that relies on GI absorption—is most notable during treatment initiation and dose escalation. The severity of all of these symptoms, and then also of gastric emptying or the delay in gastric emptying, does vary by the specific therapeutic that someone is taking.

The dual GLP-1 and GIP—that stands for glucose-dependent insulinotropic polypeptide, otherwise known as tirzepatide—we know that this has a more profound effect on gastric emptying and GI side effects than other agents. The medication semaglutide is also known to have a more profound effect on gastric emptying than some of the other medications.

Dose also plays a role. So if someone is taking, for example, liraglutide, there's data that shows with liraglutide three milligrams, there's a 23 percent reduction in gastric motility versus taking two milligrams. That's only 13 percent.

Dr. Ramnarine:

With that being said, what does the current evidence tell us about the relationship between GLP-1 therapies and oral contraceptive effectiveness, and how should clinicians interpret that evidence when making treatment recommendations?

Dr. Yee:

Our most robust data surrounding GLP-1s and oral birth control are pharmacokinetic studies, and they show varying effects on different GLP-1 therapies on oral contraception absorption.

And there are some implications, clinical implications, that we can draw from these studies on oral contraception management and timing of when we should take these two medications in relationship to each other. For example, there are some studies that show that semaglutide and liraglutide actually show no clinically relevant reduction in oral birth control bioavailability. And so based on that study alone, no change in dose management is warranted.

But a different therapy, for example, exenatide—which is just a different type of GLP-1—does delay how long it takes for an individual to reach the maximum dose of their oral birth control. And so what this study pointed to is that we could consider delaying that GLP-1 administration by one hour after taking a birth control pill.

And then probably most notably, the medication tirzepatide—which is that dual GLP-1 and GIP agonist—was the only medication seen thus far that has true pharmacokinetic bioavailability effect on birth control pills. And in that setting, given that the pharmacokinetic parameters are truly altered with that tirzepatide, that has a clinical concern that there could be a decrease in effectiveness.

But again, it can be hard to make that jump from pure pharmacokinetic effect to how effectively this birth control is going to decrease pregnancy or chance of pregnancy. It's important to note that changes in pharmacokinetic parameters don't always translate into contraceptive failure.

And then I also wanted to say that we really don't know if these medications interact with one another on the hypothalamus, the pituitary, or the ovaries. And so there could very well be interactions of these two types of medications completely separate from any pharmacokinetic therapies, and those potential interactions are much harder to study.

Dr. Ramnarine:

For those just tuning in, you're listening to *Advances in Women's Health* on ReachMD. I'm Dr. Shelina Ramnarine, and I'm speaking with Dr. Halina Yee about contraception in the era of GLP-1 medications.

Now, if we consider a few patient scenarios, Dr. Yee, let's say a woman is starting a GLP-1 therapy for weight management and currently relies on an oral contraceptive for pregnancy prevention. How would you approach counseling her about contraceptive options while still supporting her treatment goals and maintaining confidence in both therapies?

Dr. Yee:

So of course, maintaining or keeping in line with weight management goals and pregnancy prevention together are equally important in discussing priorities. And anytime I engage in contraception counseling with patients, I always engage in shared decision-making and elicit what is important to the patient.

And so in the context of GLP-1s and potential decreased effectiveness of oral birth control—as well as an overall unknown territory of how these two very important medications interact with each other—I'm very, very clear with patients that we don't know very much yet. And so in the context of that, I do tell patients we have some data that shows there could be decreased effectiveness in oral birth control pills.

We still have absolutely many forms of pregnancy prevention that we suspect have no or very, very little interaction with GLP-1s. And so there's actually no information available yet about potential interactions for non-oral forms of birth control. And so current clinical guidance actually recommends that we don't need to make any dose adjustments to non-oral forms of birth control like patches, rings, condoms, or long-acting reversible forms like implants or IUDs. But because there's such little biological plausibility, we actually recommend that there does not need to be any difference if patients are taking a non-oral form of birth control. So I also am very explicit with patients during this time that there's increased potential for pregnancy if patients have a rapid reduction in weight with their GLP-1

and a resumption of ovulation.

So that increased potential for pregnancy pairs with the fact that we also don't fully know how these medications, the GLP-1s, affect a pregnancy, if they are all teratogenic. And so highlighting the big picture of an individual's reproductive goals and the setting of potentially being able to get pregnant much easier than before is also really important in these visits.

Dr. Ramnarine:

Here's another common patient scenario. A patient with type two diabetes has been doing well on GLP-1 receptor agonist and is entering a period of dose escalation. She's focused on improving her long-term metabolic health but wants to avoid pregnancy. How can clinicians help patients like this balance their health goals with the need for reliable contraception, and when should alternative methods such as implants or IUDs be considered?

Dr. Yee:

While maintaining a patient's desires, I do bring into the conversation the fact that implants and IUDs are not only really effective—one of the most effective forms of birth control that we have—but they are unlikely to have any interaction with any GLP-1 use and vice versa.

And so we can have some security, if a patient decides to have an intrauterine device or an implant, that they can consistently undergo dose escalation of their GLP-1s and reach their goals for their metabolic or their weight loss and still be reassured in pregnancy prevention.

Dr. Ramnarine:

Finally, Dr. Yee, as our awareness of this issue continues to grow, what are the most important counseling points clinicians should incorporate into routine conversations with women of reproductive potential who are prescribed GLP-1 therapies?

Dr. Yee:

I think for me, the most important thing in these visits when I have a patient—either I'm meeting them for the first time, they've been on a GLP-1 for years, they are thinking about starting one, or they have started the process and they've just initiated it—I think it's really important to explicitly define patient priorities and patient desires. What is important to that patient? In terms of their reproductive health, and in the context of the fact that we have this information, this information exists in a vacuum. We still don't know, as a community, how these limited studies actually manifest in our patients. That said, this is how I can counsel you with the information and the knowledge that we have.

And with that, I still always discuss or include oral forms of birth control as a reasonable option, as long as patients fully understand all the unknowns—the potential for decreased efficacy of birth control pills and everything that we talked about. And I do emphasize the role of non-oral forms of birth control: patches, the ring, non-hormonal forms of birth control like barrier contraception, and then also long-acting reversible forms of birth control. We as a community have we seen more and more patients already tending towards these long-acting forms of reversible birth control, and I wouldn't be surprised if in the new wave of GLP-1 use, potentially more individuals tend towards those forms in lieu of oral birth control pills.

That said, a patient might be taking GLP-1s because they're trying to lose weight because they want to improve their fertility, and so they might not want to be on a long-acting form of birth control. Or a patient will never want to get pregnant or wants to delay their pregnancy by five to ten years. So again, I think tailoring the counseling to really empower patients to have all the knowledge that we as a community have is important so that they can co-manage these two very important types of medications.

Dr. Ramnarine:

With those final thoughts in mind, I want to thank my guest, Dr. Halina Yee, for joining me to explore the impact of GLP-1 receptor agonist use on contraceptive counseling. Dr. Yee, it was great having you on the program.

Dr. Yee:

Thank you so much for having me. It was a pleasure.

Dr. Ramnarine:

For ReachMD, I'm Dr. Shelina Ramnarine. To access this and other episodes in our series, visit *Advances in Women's Health* on ReachMD.com, where you can Be Part of the Knowledge. Thanks for listening.