Introduction and Testosterone Overview

Hello, everyone, and welcome to the Prostate Cancer Summit. I'm your host, Doctor Geo Espinosa, and I can't wait to introduce to you and have this conversation with Doctor Brian Gerber, who's a board certified urologist and diplomat with the American Board of Urology.

He's also has a great practice in Illinois and near Chicago is the Urology Care Center and the Optimal Aging Institute. Brian, thank you so much for being on this early morning.

Thank you. So. I think that the conversation with us so I had a great conversation with, an expert doctor, Helen Burney, on testosterone is in this summit.

So those that are listening and viewing can, look up my conversation around testosterone and, and prostate cancer, I think with you and with Doctor Burney was an overview with you, Doctor Gerber, I'm wondering, you're in the trenches every day.

You're seeing patients you're treating with testosterone every day, and you're seeing patients after prostate cancer and applying and treating them with testosterone as well, which I think it's an excellent thing to do.

And in many, in many stages and so forth. So that's discussion that hopefully we can have first, first and foremost, what's your best and your favorite method of applying, the favorite delivery system in applying testosterone and why?

Because we were having this conversation prior to recording, and I think it's a little bit different than what most people think. So let's start there.

But a preferred method would be the bioidentical pellets that that the testosterone pellets that we that we place and they usually place just, in the upper cheek.

There's I like them as number one there, by the way. Dial, you know, meaning that your, your body can't tell the difference. You know, it's the same organic structure as the as the testosterone your body has.

The other reason it's the the delivery system. To me, it's the most it's the most physiologic delivery system out there. I mean, think about how your testicles work.

Your testicles basically work by making, you know, testosterone goes directly into the bloodstream. These pellets are basically going into the in the fat in the, in the upper butt cheek.

And the capital letters are forming around it. And they're being and it goes directly into, into the bloodstream. It's not it's not injections and it's not know, an oil based injection.

It's not going through the skin. It's not oral. It's the most physiologic way of of delivering it. And so how does it work. So how many what what's the size of a pellet and how many of them are inserted and how often.

So that's the nice thing about. So you know, that the company that I, that I get my pellets from is As Byatt. They're the ones that have been around for quite a while now.

And the, the pellets are a little bit, a little bigger than an, maybe the size of a grain of rice. And then the amount really depends on the individual.

And that's the thing I like about, I getting about Byatt is it's, it's it's individualized. So we don't get I don't give the

same dose to everybody. If I had a 100 guys, you know, same age, same height, same weight, everything's the same.

They're not going to get the same dose of testosterone. You know, we we, we put all their information into, into a, into a dosing site, and it gives me a starting dose and then, usually will, will, you know, pellet those patients and whatever, whatever the supplements they need, they're deficient in.

And then in six weeks, we check the blood again, and then we make any adjustments either up or down, you know, you know, based on that. And so, what's the average amount?

So how does it work? There's a surgical procedure. And, you know, like, you know. It's a it's less than a five minute procedure. Make a little teeny incision in the upper cheek.

There's a trocar that goes in. You put the pellets, you know, into the trocar, take the trocar out. No stitches. It's a little scary strip. You know, those Band-Aid stitches, strip on it, and that's done.

Pellet Delivery Method and Dosing

And. And for how long? Because I remember I complete on honestly honesty here. Clinical, experience. I haven't recommended the pellets for a while just because of the insurance element of it.

So, you know, I think if I remember correctly, like three months and then on two months, I can't remember before they, you know, the insurance is willing to pay again.

Then the patient starts feeling crappy, you know, about a month before, but they they have to wait. So I have to feel crappy for a month before they get the next set.

They only allowed for, I don't know, 12 pellets number a certain amount, not what's right for the patient. So how is this different than that? Well, first of all, the with the biotech it's cash.

So they don't go through the insurance because you write off the insurance. It's the they don't cover it. They don't cover what you need. But the pellets usually good for about five months.

But again, that's that's just five months. But that's just an average. That's why, you see, that's what we start with. Now, I do my pellets. I'm a pellets as well.

I do mine every four months, because I burn through mine pretty quick because I have a fast resting heart rate. And, and most of it's based on cardiac output.

So the more active you are, the more that the quicker you'll burn them out. And then you can and then you can also play around a little bit, you know, with them, if somebody is burning out very quickly, you might be able to give them a little bit more testosterone.

So you get your level up a little higher. So when they come down, because you figure there's, there's, there's, there's sort of a number, there's a number where they're going to feel good and who knows what that number is.

Maybe it's maybe it's, you know, 900, maybe it's a thousand, maybe it's 1100, maybe it's 1500 that they're going to feel good. So as long as they stay above that they're going to feel great.

It's when they started to come down below that. It's when they feel bad. So if they're burning through very quickly and it's after three months, they're starting to get symptoms again, you might want to give a little bit more just to get their baseline a little bit higher, just so it takes them that long before they they fall below it again.

Now again you're still monitoring them. We're doing blood work. So monitor and make sure their hemoglobin doesn't get too high. Reminder to make sure that I hydrogen levels don't get too high.

You know you still there's a fine line between between high enough where you're feeling great and too high where they're having, you know, some some issues.

So with injections, those that get injections, one of the main concerns is high hemoglobin. And so they have to get blood draws. If their hemoglobin is too high, the red blood red blood cell count is too high.

The reason for that is because testosterone actually, it it stimulates the bone marrow to produce more red blood cells, typically. Right. So, but that seems to be an issue with injections more so than even oral than pellets.

Is that the case? And and so then that so then patients who do the pellets maybe don't have to really worry about, high hemoglobin, what they need to get, you know, blood, blood draws.

But yes or no, I mean, if I give you if I give you way too much pellets, you know, testosterone, you know, they get you really, really high. Yeah. Your hemoglobin is going to go high.

Okay. But but you might not need to be that high is my point. Now with with the injections. The reason why is because when you when you're giving the injection.

And it's funny because I can always tell when somebody comes to me from another doctor, who's giving testosterone, whether or not this physician really knew what he was doing or not.

Because some physicians will give injections every, every two weeks or once a month. That's wrong. Okay. The minimum, the minimum testosterone injection should be once a week.

But then even better, do it once a week. You have a pretty high trough, you know, a I'm sure you have a high peak and a low trough and you get that, you know, you get that roller coaster back up and down.

Excuse me. So with the shots, a lot of times your the reason your testosterone is getting so high is because your peak is so high, and it's making the hemoglobin go up.

So like when I said people in testosterone injections, if that was the case, a lot of times what I would do is I would cut the dose in half and I would have and take the injection twice a week, and that would I would shrink the that would shrink the, the peak and trough and keep it a closer, you know, steady state, which is why like, which was nice about the pellets now because the pellets, once they get you up to that stage in a nice steady state, you know, you don't have that roller coaster event up and down like you do with the injections.

And so then when they come back to, to to replace their pellets, it's usually around the time that they still have a short peak and trough. It's not that wide like you would with when insurance companies are covering it.

Right. A lot of times, let's say is what happens is I like I like to get them as they're just starting to come down and I haven't had symptoms yet, but just start to come down.

Because if I put pellets in you today, the really I can start kicking in for about 7 to 10 days. Okay. So so you have another seven, ten days for them to come down and another example, if I have somebody who's on injections and they come and see me because now they want pellets, I'll pellet them.

But I'll tell them to continue their injections for one more week until until the pellets kick in. I see. Yeah. All right. So let's have a general conversation on.

So you have a patient with prostate cancer. They have a history of prostate cancer. Okay. Let's go through different scenarios. We can. Okay. Patient number one, this patient, is, I'm just pulling these ages out of the year.

He's he's 58 years old, just diagnosed with, he is on testosterone therapy or, let's just say his testosterone. He's not on testosterone therapy. He's on Gleason six, and so he's on active surveillance.

Okay? His stock is low, and he's he's symptomatic. So sometimes testosterone is low. They're not symptomatic. He's definitely symptomatic. Okay. Yes. Pellets right away.

Do we wait for a PSA and say, well, let's let's see how your PSA trend within time, how would you treat this patient? Okay. So first of all, it's funny because in my practice I have both urology and I have the optimal agent.

Yeah. So so. Sometimes you have to combine. Both. Right, right. But but but the funny part is, is, is some patients I'm putting on Lupron injections, you know, to knock down the testosterone.

Yeah. Okay. And then other patients, I'm giving them testosterone because I'm telling how bad low testosterone is. So. Exactly. So when you're dealing with prostate cancer, you're sort of balancing out, you know, the, the, the lesser of two evils, I guess, you know, you know, prostate cancer or having low, low testosterone.

So with with prostate cancer let's go through scenario. So you have a gentleman now he has a Gleason six and does they've got these are symptoms of having low, low testosterone.

It's an active surveillance. It must do active surveillance. Right. So it's it's not being treated. So at that point, when the first thing I would do is I would, I would look at what his testosterone level is.

And if his testosterone level is already above 240, then I'm comfortable. And his PSA has been stable, right. That PSA is have been stable. I'm I'm okay giving him testosterone.

And I'm basing that, on, Abraham Morgan toddlers, you know, out of at of Harvard. You know, his history. Sure. With the saturation that once your testosterone levels above 240, the the receptors on the prostate cells are already saturated.

So it doesn't matter if your testosterone is, is 300 or 1500. Yeah. Your risk of feeding any prostate cancer with this strong is the same. So it's not going to it's not going to I'm not increasing at all.

So I have no problem giving them testosterone. Now if that person's testosterone was only 100 you know or something like that, then I then that's a different story.

Then I don't have a discussion with them that I don't know if they're just if they're PSA or are maintaining because the cancer is not really doing anything or it's gone.

Testosterone Use in Active Surveillance

You know, if they were treated or if it's the fact that the testosterone so low and by me now giving them testosterone, I might actually be saturating those receptors.

It might be causing it. You know, to grow. So, so. Even since things who will unlikely die from his disease, you will still be you will still kind of be cautious.

And again, they're symptomatic. So you still be cautious. If their testosterone is already low you can if test doesn't follow if there's testosterone below ten.

Let's say let's say 300. But although. I hope I'm treating them. Yeah. Yeah. So right. So your concern is if it's below because of the saturation model you're turning off, it's way too low.

Then it may ignite something. I remember one, Doctor Kara saying, it just don't be. Wait, what did he say? He said, the problem is the problem? Yeah. He says if it's if it's way too low, the problem is if it's way too low or way too high, that now I'm.

I'm misquoting him. Either way, he's he's a proponent of testosterone treatment after prostate cancer in many of these active surveillance patients. So that's active surveillance.

So age wouldn't matter I said 58 year old man. What if he's 78. Does that matter? You know, if he symptomatic is symptomatic? I mean, and if he wants testosterone, he's going to need this is strong.

You know, the the the again, the thought process is that if they're, if their baseline testosterone is already above 240 by me giving him more testosterone, I'm not increasing any risk of their aggression, of their of their progression of their prostate cancer right now.

No, don't get me wrong. I mean, the prostate cancer can also give them an active surveillance. Doesn't mean that they're going to be fine. I mean, even if you don't get them to start strong, there's a good chance you're on active surveillance and they're going to start going up.

Yeah. And they're going to need treatment regardless. They're going to eventually need treatment, you know, radiation or surgery. Actually that's a good that's a good point.

Typically you treat them with testosterone. There's a little bit bump in their PSA. But in this case would you say well no that bump is is for benign reasons.

Or you kind of give them a heads up that their PSA will rise after testosterone treatment. So I really like the initial, I don't see a, initial bump a lot of times.

And unless they're like, really? Okay. I mean, I mean, if you have somebody who, on Lupron shot and their testosterone is castrate levels and then you get them, you know, testosterone.

Understood. Yes. You know, then there are times I'll see a boost. Okay. That's just like when I had patients on that on Lupron shots. And I train with radiation and I take them off the Lupron shots. But, you know, I tell them I expect the PSA to come up a little bit that eventually level off.

But I don't really see an initial boost when the first stardom, a lot of times, in fact, it's like sometimes it just stays the same or even even goes down sometimes, believe it or not.

Is that is that because it's the pellets or because I do see it with, other methods of delivery and and then it does stabilized. By the way. Right. So I think a lot of the, the, the junk, isn't, isn't, isn't so much the, because I actually, I actually gave a talk on this on, in Miami, at the medical conference group, I was talking about how to manage elevated PSA, testosterone therapy.

So I think sometimes those jumps have to do more with, with the, with the BPH aspect of going on testosterone. So, yeah. So when you're on the testosterone, you know, you're going to you're going to also increase your dihydrotestosterone levels, which is going to be going to make the prostate grow, which also causes obstruction.

So just on the growth of the prostate or the obstruction of the prostate, you can have an elevated level. For benign reasons. Sure. Right, right. For many reasons.

But I don't think it's going to be the cancer raising that now. But again, if they're just Angstrom was was only 100. And now you put them on testosterone and their PSA goes up.

That's going to that's going to jump. That's that now. So now your question in the back of my mind now saturated the prostate receptors that you know the cancer cells that weren't saturated before.

And now I'm making the prostate cancer grow where before I wasn't because the testosterone was so low. Interesting. Very good. All right. Next scenario.

Patient had prostate cancer. Let's for ages irrelevant patient. The patient with prostate cancer. Gleason let's call it seven. Either three plus four. Four plus three.

Does it matter? There's no evidence that he has, cancer anywhere outside of his prostate. He gets his prostate

removed. Let's say let's just say he gets his prostate treated with.

Okay. Or anything. Right? He's hypo gonadal, and he has symptoms. Would you treat this patient with testosterone? If so, when would you start that process?

How long would you wait to before you treat him? That's a good question. So when I years ago, when I first started doing this, I kept saying I was going to wait, you know, two years before I started treatment for the treatment then and then now, now it's come down to, you know, you know, a year, now it's come down to, a year and sometimes even even less.

You know, there's. No hard data that we can put, hat on and say, well, this is it, right. So. Right. Yeah, exactly. It just have to go through your clinic, your clinical gut, again and, and again, a lot of it also basis again.

And what their primary what their with their baseline testosterone is. So if I treat somebody with radiation or surgery and and they already had the you know they were complaining of you know low you know hypogonadism real symptoms of low testosterone.

If their testosterone level again is above, you know, 240 again, I have no problem because I don't I don't think I'm changing anything. But if they. Just wait to, to get their PSA to make sure it's somewhat stable before you start the month, or does that matter?

So technically, technically, if their testosterone was above 240, I guess it really wouldn't matter, right? Because the process of the PSA is to do with the PSA is going to do well.

No, no, this is a scenario. So remember this scenario. They've been treated. So if they had their prostate removed and their PSA undetectable. Oh yeah. Yeah. So that's right.

So the PSA yeah I'm thinking radiation is they get radiation. Sometimes it takes 2 to 3 years before you get the nator before it comes down. All right.

So the passage removed the PSA 0.0 okay. Or 0.02 or whatever. It's going to be zero less than 0.02 as far as I'm concerned, is again, you can if they're if they're, if they're testosterone level is is above 240 I'd go ahead and treat them immediately.

Go ahead and it would you. Wait any amount of time so they get their prostate removed before just to make sure that their PSA doesn't start climbing before or or do you care if the PSA climbs like what would be?

How long would you wait before you treat them with testosterone? The guy that had their prostate removed? And when they when they come back for their first, you know, three month visit or whatever, PSA is 0.

Testosterone After Prostate Cancer Treatment

0 and they're and they're and they're saying, you know, I'm just so fatigued. You know, I'm so, you know, darn it. And I really need I really need, you know, testosterone.

And as long as you test it, like I said, is above 240. I have no I have no problem. So your baseline testosterone above 240. That's that's your cutoff.

That's my call. And I'm based on that strictly on Morgan Tyler's. The. Research from Harvard that says that that's what's already some saturated because my, my philosophy at that point is that whether they still have prostate cells left or not, you know, whether whether they're going to progress or not isn't going to matter the testosterone, because the test was already above 240.

It doesn't matter whether I give him testosterone or not. If they're going to progress, they're going to progress. Yeah, okay. So might as well make them feel good, you know, and and enjoy life and quality of life thing.

And then just wait and see what happens. Not the PSA goes up. You know it keeps going up. But then obviously then you would stop it. And in fact, you might have to go the opposite route and start getting Lupron shots at that point and really knock it out.

So what is that for you? So let's go to the next case. This is a person that was diagnosed with more advanced prostate cancer. So there's two there's two cases with the more advanced prostate cancers that we're going to discuss.

One is okay, you know, Gleason nine, no evidence of metastases anywhere. Successfully treated with, any treatment, whether radiation well, successfully treated with surgery, they chose to do only radiation, not hormone therapy and radiation combined.

Let's just say in this case, when will you treat that? Is it the same scenario? If the total test is above 240, treat them right away. Or would you be more careful with a higher Lisa score person?

That would be a little bit more careful. I live more careful and I want to see what the PSA is doing. Yeah. So usually excuse me. Usually with usually with with radiate with radiation.

You know, it could take up to three years before you get, before you get that later. And with a hundred Gleason score, you know, you worry about did you get it all?

You know, even even if you did a prostatectomy, radiation. Was there any cancer cells outside the prostate that never got treated, you know, and see where they're at.

So so for them, I'd like to see, you know, where I like to wait and see if they needed, you know, where they needed out. And again, I would I like to see after radiation the PSA get less than one.

I love to see it get less than 0.5. Okay. If their PSA is around, you know, two or something like that, I might wait a little bit longer. Also, you're waiting for that PSA spike.

You know, when they get that PSA spike out of the way first to me before I might before I might put them on it. That's after reconstruction. After radiation, right.

Yeah. That's radiation. All right. So the other case is aggressive. Prostate cancer had been treated with ADT. Just to give you a little bit of a background of what I do with some of my patients.

So I don't treat them with these, any of these methodologies, they come to me to help them navigate. Hey, what should I do? I already have this doctor from University of Chicago or wherever.

Northwestern. What should I do? And so when they come to me with an aggressive case of prostate cancer that they seem to, they're going to go on hormone therapy, either with in combination with radiation therapy or alone.

My first my first conversation with them is ask them. The oncologist, when are they going to put you off, you know, get you off of it. Right. So intermittent rather than continuous because we don't want to create castrate resistant disease a and in the end the side effects.

All right, all right, all right. So that said what are your thoughts on that. And then what are your thoughts on okay the ban on ADT. When do you put them on testosterone if at all.

So that's so that's a little trickier. So a lot of times I will treat patients with a what I call a bi modality therapy. I put them on the I put them on the Lupron shots through the radiation, and I usually keep them on the shots for anywhere from 6 to 12 months afterwards.

And then and then I take them off the shots and see how they do so, as long as their PSA again levels off somewhere, you know, hopefully less than one and less than point five.

And it's been like that, you know, and I check the testosterone level, the physical level again above 240. And the other PSA, they're saying, well. See that zero. Yeah.

But you've taken them off. You're not you're taking them off that okay. So you're off of that and you wait for their testosterone to. Well yeah. Yeah.

You should wait for their normal testosterone to come back and see if their normal testosterone comes back. Because because who knows? Maybe they don't need they they don't need hormone therapy because their testosterone will come back higher anyway on their own.

So what you want to do, you want to see what their, what their natural testosterone would come back at first. And. Again that can take that process on loop on it seems like it's different for any type of.

You could take 1 or 12 months. Yeah, yeah, yeah. So when you stop Lupron, when you stop Lupron injection, it can take anywhere from 1 to 12 months for them to get back to their, their normal or their, their testosterone level, whatever their test level is going to be.

And, and and that those are variables based on age, and how long they've been on the Lupron shots. Right. You know, so a lot of times I'll wait for them if they're really that aggressive.

And I had them on that. I would, I would wait. Well I because I've had a couple they'll come in, they'll say I want to go on testosterone. I say, well let me see, let me see what your testosterone level is already okay.

And if their testosterone level is already above 240 again and the and their age thing was stable, then yes, I'll go ahead and treat them. If the testosterone comes in at, you know, 150, then I'll sit there and say, you know what, I'm going to wait before I before I give you any testosterone, let's just check your testosterone level again in three months or six months.

Let's see. Let's see if it comes up any higher. Let's see where you're at, okay? Because again I use the 240 as my as my guide. Because if they come back after a year after Lupron shots and they come back, you know, it's it's a year later and their testosterone is still at your own castrate levels like 50 or 70 or 100.

Advanced Disease, ADT, and Bipolar Therapy

Well then I do have a, a, you know, a serious talk with them and say, listen, your PSA is are doing great. Your cancer's under control, but I don't know if it's under control because the radiation got rid of all the cancer or because you're your testicle, because your testosterone is still so low, it's almost like you're still on for mobile therapy.

Yeah, okay. And that's why it's so low. Yeah. So by me giving you testosterone, we could actually be, you know, be feeding any cancer cells that that weren't treated. So some will then some will say, well, I don't want to take that risk.

And they don't they don't want to go on. And after that other. Medical oncologist, may I, would you have a conversation with their medical oncologist?

Because they may. Well, well, most of them don't have a medical oncologist at that point. Okay. So monitoring their ADT, I guess you would do that. I guess.

No. So so they have a radiation oncologist, but they wouldn't have they wouldn't have the they wouldn't have a medical oncologist. Yeah. Yeah. The only patient I see in the medical oncology would be after it's out of control, that I can't take care of it with hormonal therapy or, then I send them for chemotherapy for better.

Or stronger antiangiogenic. Right. Like abiraterone and. Well, yeah, I mean, I mean, I mean, I still I mean, I'll give them, I'll give them, As a luteum.

I or Lita, right. Or Lita or Tandy or something like that. And then I'll give them, I'll do that. But if they're feeling that, then I'll send more to the medical oncologist.

I see. So you handle all decent portion of advanced prostate cancer in your clinic. So I'm not every urologist. Does some urologist just defer after a certain point to, to the oncologist to handle the anti androgens?

You do that yourself. Oh no no no I keep them I keep them I keep them until I need chemotherapy. I see if they go and and that that would I wouldn't have too many patients like that because I, I also treat my patients very aggressively.

I'm not a big fan of, I, when I was in residency, which is called watchful waiting. Now they call it surveillance. Yeah. I'm not a big fan of that. I treat my patients pretty aggressively.

I see. Three. Lastly. So, bipolar androgen therapy back. Yes, back I was when I was going to pick that up. If you didn't. Yeah. That. No. So let me know what I know.

What I think I know because I've been trying to get a doctor, the mid from Hopkins on my podcast, but I've been unsuccessful. And I know he's the thought leader in this space.

Right. And I think I know that this is not approved yet. So what that is, is a combination of, entered deprivation therapy for the audience and the therapy.

At some point, you maybe you can expand on that. You do testosterone therapy at super physiologic levels, and that is that actually not only the quality of life is good, but it has anti prostate cancer benefits as well.

Right. That has not been approved yet as best as I know. But I know some clinicians that are doing it because you know there again you have to kind of you're in the trenches and you can't wait.

So your opinion about that, clarify anything that I misstated to how it works and, and how do you work around that. So I don't I unfortunately, I don't I don't think I know much more about it than, than, than you do right now.

And I'm just I'm aware of it. Do I do it? I don't do it. I just know that there's I mean, there are several studies that suggest that, you know, treatment with, you know, super physiologic levels of testosterone can retard the prostate cancer growth.

And I do know that they do it in a, in a, in a I think it's like a four week cycle. We go real high and then you let them come all the way back down to almost nothing, and then you go back high again.

Almost like an intermittent therapy like Mr. years ago with, with intermittent therapy. But I, I'm not sure exactly how it works or how you get the tumor, you know, you know, response like that, but, but but yeah, there's a number of studies that are doing in fact, there's actually a, a, an article, I think in 2023 and, Natural Reviews of Urology or something like that.

I think Kumar Kumar was the, the head of the, that paper, that, that came out, it was, it was titled, testosterone paradox of advanced prostate cancer.

Right. Yeah. So yeah, I I'm, I'm not I don't do it. I'm not really familiar. How it works and why it works. So you're not. Yeah. Yeah, yeah. And but I'm, I'm aware that it that it's that it's that it's there.

And I've also heard of people that, again, I'm not on board on this, but I've also heard of other people that are actually treating prostate cancer with high doses of testosterone.

Yeah. You know. No, no, no, under the provision therapy. No no no no. Yeah. They're just they're just giving high levels of testosterone from the very beginning.

Oh, you got prostate cancer here. Let's just give you high levels of testosterone and see if that, you know, control. I've heard of that. And I've heard of that for over a decade now.

Right. In the patients I've seen, it didn't work out. Well, but maybe nothing will work out. Well, I'm talking about patients who had PSA in the thousands and they had metastatic disease.

And they said, look, I have nothing to lose and I care about my quality of life. And I, you know, and I don't like my other options. Right. But I get it doesn't seem to extend life, from the cancer itself much, that I've seen what any even if it's just your experience or.

Yeah. Yeah. I again, I've no experience just from what I've heard, you know, I mean, I'm thinking I'm thinking that the reason why the back might work is the whole idea that, you know, if you have so many Lupron shots, you know, deprivation, they will, they eventually will develop castrate resistant, you know, or hormone resistant, you know, you know, prostate cancer that that the cancer for the, for lack of a better word, mutates, you know, and starts making its own testosterone, whatever.

So I think by doing maybe the, the bad by giving the, the super logic levels of testosterone, I think you're preventing that cancer from making its own or or, mutating.

And by doing that, you're able to, to extend, you know, the treatment a little bit longer without getting the hormone, without getting the hormone resistant.

Okay. That's just the theory I so that's my guess is for now. I love it. I mean, look, this is where we are now in 2024. Things may change in a year or two years.

We'll see. And so then lastly, your your your number one method of delivery is pellets. You use the built system. And that's, that's what you've used for several years.

And that's your favorite approach at this point.

Closing Remarks and Where to Find Doctor Gerber

Yes. Yes. Yeah. And does it work for everybody. No, I mean, I mean I mean some patients still prefer the injections, you know, for whatever reason. And that's a nice thing about about the biotech, about the biotech, you know, company as well, is that they, you know, they they, you know, they, they when you put in the dosing formula, it will give you, you know, injections, you know, with the pellets.

But I prefer, I prefer the pellets, like I said, for for many reasons. I said earlier why I like them. But for some reason for some patients the cultures don't work for them either, because of course, you know, they they can't afford it or I do have one patient that for whatever reason, he just keeps popping out the pellets.

His body just doesn't like them for whatever reason. But but that's rare. That's a very rare, you know, scenario. All right, Doctor Gerber, thank you so much for being on.

This is always a great conversation to have as it relates to hormones and prostate cancer, particularly to stop strong final words. And how can people find you?

They if they want to find you? They can find me. Either I'm in, Elgin, Illinois, you know, northwest suburbs of Chicago. If they're looking for, you know, testosterone replacement therapy with the pellets or the biotin, they can also go on, you know, the biotech web, biotech website.

If they're not, if they're not in Chicago, they can, you know, put down their, their zip code and, and give them another provider, you know, that that, uses biotech, you know, pellets and hormone replacement.

Lovely. Thanks so much for being on. Thank you. Thank you. For listening. For this this other just yet great episode

of the Prostate Cancer Summit. I'm hope.

I'm hoping you having fun and finding really valuable information through throughout the summit, a lot of experts, we try to get the best of the best.

And thank you to our experts. And thank you for our sponsors. They made it easy for us to at least provide this information for you at no cost to you.

Continue on listening. There's more to come. This is Doctor Geo Espinosa signing off the prostate cancer summit. I'll see you soon.