## Introduction to Tulsa Pro

Hello, everyone. Welcome once again to the Prostate Cancer Summit. I'm your host, Doctor Geo Espinosa. And it's my pleasure to introduce to you, Dr. Mark Hong from the Inter Integrative Urology in Arizona, Scottsdale or Phoenix at Mark Phoenix, Phoenix, Arizona.

That's a prime location. Thank you for being on. I really appreciate your time, your expertise. It took a minute, Mark. It wasn't easy to get to where there's a will. There's a way.

It wasn't easy to get you on, but I'm so happy to have you on. So this is the prostate cancer Summit, right? And we covered quite a few things already.

You know, we've had, Steve, to kind of give us a full spectrum on all things focal therapy. We had our excellent, radiation oncologist, talking about what different types of radiation therapies and sbrt and things like that.

Active surveillance. We haven't yet had had a hyper focus on, you know, Tulsa and Tulsa is one of the new kids in the block as it relates to focal therapies.

So I say Tulsa people think Oklahoma, I know is it probably a dry joke by now. But it's still it's still comes around. So give us, a kind of an overview on Tulsa how how Tulsa treatment works for prostate cancer.

Let's start there. Sure. And, first of all, thank you for having me on Doctor Joe. And, definitely honored to be here, on on this Halloween. I think that, you know, first of all, it's interesting you frame it like that because ultimately we are, blessed with, any number of things we can do for prostate cancer, in order to achieve a cure.

And, in a way, it's a blessing. And in a way, it can be a bit of a curse, because I think as a consumer, as a patient who has been diagnosed with prostate cancer, especially newly diagnosed, it can be incredibly confusing on what to actually do.

Of course, you can gather a lot of opinions. And then the the irony is that, of course, whoever you talk to, it seems like that's the thing you should be doing.

And that's because we're all enthusiastic about what we do, and we do it for a reason. We definitely believe in it. But it wouldn't be wrong to say there could be many, many different, right answers.

And then maybe, a couple of lesser right answers. So it's not like necessarily right or wrong answer. And so I'm reminded, you know, in The New Yorker, Malcolm Gladwell wrote a great piece, about, the, the similarities between prostate cancer and Enron, if you can believe that.

So, you know, kind of talking about how, you know, Enron, basically, there was a reporter at the Wall Street Journal that figured out, kind of what Enron ended up becoming, to be known as, which is a big fraud, right?

And accounting fraud. But actually, this reporter just figured out what to do based on publicly available statements. You know, what the SEC, etc. was.

So prostate cancer is more of like a amorphous thing where you can look at all the available data and still not know what the answer is. So by the way, check it out in the new Yorker.

If you look up Malcolm Gladwell on prostate cancer, it'll it'll pop up. I actually bring this up because, I was at a conference with Malcolm Gladwell, and I can tell you that I was the only one in that room out of thousands, who, both specializes in prostate cancer and actually worked at Enron.

So we had a great we had a great laugh about it. Right. Because I can tell you from. Right. Exactly. What were you able to tell him that.

## Who Is a Good Candidate

Oh, yeah. Yeah, yeah, we hung out for a bit. It was hilarious. So, you know. Hey, that's cool. He was talking about that that subject at this medical conference, and that's where, you know, it's, anyhow, so if you're, if you're, going through the dilemma that every guy goes through, which is reinvent the wheel each time you get diagnosed with prostate cancer, try reading that article.

It'll help you make sense of why you feel confusion about what to do about, your diagnosis. Now, having said that, adding to the, you know, relative embarrassment of riches that we have for prostate cancer is this thing called Tulsa Pro, again, an acronym?

I always even forget what action is the expert there's like trans, transfer atrial ablation of the prostate. But ultimately, what it is, is it's a novel technology.

And the novel parts of it, are that it's an MRI based, surgery. So it's not a, you know, radiation type of treatment. It's a surgical treatment, but there's no incisions.

And, I know you've had some guests. I have taken the time to, check out your podcast in detail. So, Doctor Manning, for me at southwest gave an excellent overview of it.

Podcast number 118. I think, you know, definitely go reference that because, he covered it in great detail in a way that is, I think very fair and balanced.

Just the overview, though, is that it's, it's novel because it's number one insertion list. But number two, the hope of the technology is to build on what we have already been doing for many, many years, namely that of high throughput.

Right. So high flow, high intensity focus ultrasound that's using ultrasound based energy which we know basically super heats prostate tissue in a way that denature proteins, causes cell death and therefore causes cancer death.

But using it in a targeted way. So the novel aspect of Tulsa then is that it is MRI guided, as you know, most types of is done in the nation, does ultrasound guidance, which is a different level of, of certainty about what you're doing.

And then, of course, it's done from the inside out. So it delivered through the urethra rather than, it typically is done through the rectum, which, of course changes the safety profile of what we're doing.

And also it changes the location of what we are able to access in terms of the cancer location within the prostate. And therefore, whether you do it focal or whole gut gland treatment, meaning, you know, partial treatment, full treatment of the prostate, it can be fairly customizable on how you do the treatment.

So, who is the right person for this disease? So they get diagnosed, right? So they get diagnosed and, there's a staging system called the Gleason score, and Gleason goes from 6 to 10.

Though I've seen it, Gleason ten only once, and I've seen a Gleason five once. Have you seen Gleason fives or tens ever in your life? Here we will see Gleason tens.

Gleason fives are sort of, you know, the Gleason score, of course, has been around for decades. And, you know, theoretically, you should be using the full spectrum of, you know, grading, you know, down to two, up to ten.

But realistically, we don't, you know, pathologists are kind of trained to not call anything, below a six. So, yeah, I mean, if I, if, you know, I suppose it's possible, but it's.

Yeah, three plus 2 or 2. I don't even know what it what it's a two. Does it not look like A1I mean, yeah, unfortunately it's, it's a bit of a subjective nature of places.

And maybe this pathologist says that, you know, living under a rock for the last 20 years. I have to. Sorry. Yeah. Because it wasn't that long ago. It wasn't like it was like, 40 years ago, you know, it was, relatively, maybe 18 years ago.

Actually, I, I, you know, I, I respect, you know, pathologists calling it as they can see it, but, you know, the, of course, the whole implication is that Gleason score is correlated to your outcome.

So if you were to, follow people over, 23 years, which we have studies for, you know, the higher numbers, the high risk categories, Gleason eight, nine and ten, they're going to do worse in terms of their survival and in terms of rate of assassins, meaning cancer, leaving the prostate, that kind of thing.

So the Gleason score does matter in terms of knowing how things are going to go. Your prognosis is what we call it. And then also your response to treatment, whether you do one thing or another, the rates of or of course, even recurrence, cancer coming back are going to be higher.

The worse your cancer is. Who? So who's the right candidate? Right. So, what's the right Gleason score? And, you know, so let's just say, I think from the literature, we know that, active surveillance is a real thing.

if there's a Gleason six, person, which. Let's leave him alone. Gleason seven. Low intermediate risk. So then. And then Gleason eight. Maybe not the right person for, Tulsa.

So then who's the right candidate? Yeah. I mean, I think, you know, first of all, always a great question. And, maybe I would actually say that the Gleason score, while an important part of the decision making on who's appropriate for a Tulsa pro, I might, allow ourselves to think bigger, and think about the patient as a whole.

So, the, the appropriate candidate, first of all, is somebody who wants to hear the right answer and then also understands the relative advantages. But also the relative limitations of the technology.

And so I say that carefully because, at the end of the day, we all want the same things, as, as a practitioner and as a patient, we all want that perfect trifecta.

We want to be able to cure the cancer on a permanent basis, and then we want to be able to minimize the side effects for, let's say, harms of what we do to treat it.

And everything we do to treat prostate cancer has a potential harm. So it's all about, I think, trying to find the right balance of what's likely to carrier cancer, versus what are the side effects?

You're likely to have to put it a different way. You can throw the book at something. Right. Do a radical price ectomy and even get adjuvant radiation on top of that.

And maybe throw I'll throw into hormone therapy for good measure. But nobody in their right mind is okay with doing that. For Gleason, six cancers, right.

Relatively low risk cancers. So we kind of understand that there's always some some fine line between overtraining and, but then also not under treating and allowing cancer to, come back or escape, which, by the way, is the reason why we find ourselves in a position where for, as a policy statement that for a Gleason six cancers, we, tell people to be on surveillance to watch it.

And while that is based on good science and, clearly something that we've embraced as a, as a urology society, you know, it wasn't that long ago that we were removing everybody's prostate.

If you had a Gleason six cancer. And frankly, then the the sort of backlash against the problems that came from

prostate committee, namely, of course, incontinence and erectile dysfunction was enough to, let let people who have gone through this for a cancer that might not otherwise kill you, realize maybe I never needed to have my prostate taken out.

So, you know, then you can actually take it a step back and think about. Okay, let's say that, you know, Tulsa Pro had existed back then when we were doing, you know, a 100,000 prostatectomy, sort of, you know, let's say 50,000 prostatectomy a year for Gleason, six cancers.

Well, okay. Is it possible that that could have changed? The nature of things that people, if they weren't leaking so badly, if their erectile dysfunction wasn't so bad?

Is it possible that, they would have been happier with the results? So I think it's it's kind of an interesting what if. But I think the big picture is, I think there is a need in the, prostate cancer armamentarium to, have a cure or a chance of cure without causing as many side effects as what the currently available standard of care treatments are, namely, that removal and radiation.

And that is why the focal community exists. Right? There is a reason why these other technologies, you know, focal laser ablation, high, all those things, they do exist because it's trying to find that sweet spot of, of, between very invasive treatments.

So circling back to your question, then, who is the right patient? Well, I think of it as who is, who is most likely to actually be cured because obviously we don't to treat no matter how low the risk of a procedure we don't want to treat, unless we feel very confident we're going to cure it.

But then also who's who's interested in minimizing their side effects. And then, by the way, if you recur, what are you okay with? Okay. Because the elephant in the room is that even if we take out of your prostate or even if you get radiation, there is that there is a decent chance of recurrence.

And, you know, we can define that by however, percentage that is actually about 40 to 50% chance. Unfortunately, no matter what you throw at it, it can recover.

Not all recurrence requires treatment, but at the same time, if it happens to you, your anxiety goes up. You know, it kind of ruins your world, right?

So I think, instead of thinking of it as like a one and done model, which is what we've been dealing with this whole time. And it's so high stakes. You know, you got to go through this treatment and it causes all this anxiety.

## How Tulsa Pro Works and Treatment Details

You know, I, I, I've personally published on things like the fear of cancer recurrence after, prostatectomy or definitive therapy. There's I actually really believe that we also don't take into account the holistic thought of who a patient is.

You know, they're not just the PSA number, it's actually the mind body connection that leads to the rising cortisol and other things that happen with the stress response.

Even from being on surveillance. And, you know, let's not pretend here that being on surveillance is a, you know, a bed of roses. I mean, you've got to have your PSA done each time you have your PSA.

Well documented anxiety spikes. And then, of course, you know, with the, with each biopsy you have waiting for those results, you know, it's not necessarily stress free experience.

So I would actually argue that even being on surveillance, there is some downside. And, this is where, how many biopsies can you do you want to undergo.

Exactly. Sometimes, you know, I, I'm not kidding. I mean, in some place first of all some. Yeah. You're right. And some of what's going on out there is a little bit, insane in my opinion.

I mean, I tell some of my patients, look, if you get another biopsy, you're going to have, that's a prostatectomy by now. That's your ninth. That's your ninth biopsy.

So how many of those do you want? Yeah. So and so and so then, you know, even kind of going back to the question, I would say that. Okay, let's say you have a focal treatment, right?

A super focal treatment, focal is ablation, whatever that might be. I think of it more just very, very much in practical terms, you know, is your management going to change to after that?

Because we know that prostate cancer is multifocal and Acronis meaning it tends to come up in multiple places, whether you know it or not, based on the biopsy and imaging.

And then it also tends to come back over time. So if you have untreated tissue, how likely is that untreated tissue going to sprout up a new cancer? And how certain are you about your current diagnosis that it's only in that one spot that you treat? Okay.

Well, let's say answer is you got to continue to follow it similar to being on surveillance. And you actually have to start asking yourself, what are you accomplishing by doing, so-called like truly focal therapy?

And I don't mean to, you know, disparage what we do in the focal space. I think it's great, and I think it's a good direction, but I just think you give it from the patient perspective.

If you're still on a surveillance routine and having to even do a routine biopsy after, focal treatment, then, I don't know, you know, from, from a patient perspective, it may not have accomplished what they wanted, which is reassurance, which is actually if feel like, hey, listen, this is a I can go back to living my life.

And that's kind of where I think even when we talk about Tulsa Pro, because of the customizable, that's the very, precise and customized nature of doing a Tulsa, I think it's a very careful discussion you have with a patient about what their goals are, what is their risk tolerance?

You know, how much do you want to potentially avoid erectile dysfunction? Because if we go super focal, we can almost guarantee you that erectile function is, What what you were before.

But then what's your risk tolerance of, having something come back in the future? What does that mean to you? Are you okay with a secondary treatment in the future?

Whatever that might be? So asking those questions, I think, then tease out and it basically funnels down to who is the right patient to do a Tulsa, because it's really based on form, informed consent and a clear understanding what the technology can, achieve for you.

All right. So you said a lot and I'm reading between the lines. So this is the way I'm interpreting it. I'm a patient listening to this summit, and I have a Gleason nine.

And, the way I'm looking at his men, I should go, I should go to this Doctor Hong, because maybe I can get this Gleason nine treated with Tulsa once he.

Once you have that, what's important to you? Look, what's your risk tolerance yet? Your PSA may rise again in a recurrence situation. So on and so forth.

Yeah. So I think, you know, I'm a big fan of informed consent. I'm a big fan of believing that patients will make choices that are right for them if they're given a chance to understand the information as clearly as possible.

So, of course, a the average Gleason nine patient already knows their is fairly aggressive. And of course, the biggest distinction here is do we already know whether it's metastatic or not.

Because if it's obviously metastatic well it also is not going to cure it. Nor is I certainly going to kind of care for that matter. So as long as, you know, so you, you from my perspective that a patient like that walks into my office, I have to triage them based on their own understanding, because, of course, unless I diagnose them, then I try to help them understand what they need to know.

But, you know, when people come from out of state and stuff, I. I have to then triage what's their understanding? What what do they know already? And then what are the what are the the possibilities here, including not just a pro but everything else.

Once you whittle that down, then you get to a very basic understanding of how likely is this going to cure your cancer, and how likely are you going to have something bad happen to you by undergoing a treatment?

I'll tell you the one the one situation where, no matter what you do, and I've seen this happen for prostate cancer as well as, you know, focal, therapies.

You know, if you had metastatic disease at the time of your treatment, but we just didn't know it yet. That's when I think it can all go wrong, you know?

You know what I mean? So, let's say that you had a pet CT, PSA impact, then a week before you're depressed, talk to me. And it was negative, but then three, six months later, you have metastatic disease.

Well, that wasn't the, act of doing a protecting me that caused metastatic disease suddenly spread. It's that you already had, micro, metastatic disease that wasn't, visible to, our known methods of detecting esthetic disease.

So I would say that that is a relevant situation for a Gleason nine cancer. No matter what you do, right? Whether you have a prospectively done or hypertensive product.

So of course, then the the question, if we look at it from that perspective, I love what you're saying. So if we look at it from that perspective, like, look, the only reason why some people will be, reluctant to do a focal therapy like Tulsa and Gleason nine is because the assumption that there's micro metastases outside of the prostate.

The assumption I let you know, even with, some pet CT, which is the best type of Pet scan we've ever had to determine if there is prostate cancer outside of the prostate and all the other technologies we have everything shows that is encapsulated Gleason nine.

Even with that, there's still a possibility there'll be micro metastases. So then does it matter that you do, prostatectomy or radiation or Tulsa? Is that what you're saying? I know that, yeah.

Cancer is cancer. Well, there's Gleason seven, Gleason nine cancers, cancer. We can treat it with whatever with a Gleason nine. We think even if there's no evidence that there might be micro metastases somewhere else.

But then that's the same situation with any form of treatment. Yeah. So I think it's a it's a tough situation. You bring up one that does come up clinically.

But it's the stakes are high is what I'm trying to say because it's also because if you undergo the treatment, you don't get that treatment back and you don't find out until after you've had the treatment whether there was micro, metastatic disease, all along.

So, for example, on a prosthetic case, you can certainly go do the prosthetic to me. And then if your PSA is, haven't, gone to undetectable or they're rising post-op, then you kind of know, whether the future imaging shows that or not that, that the prostate can remove all the cancer.

But I think you have to then take. Okay, well, at that point, then it's, you've done the process for me, essentially for an incurable cancer. Not that you knew it before you did the process, but what are the costs of undergoing the process?

To me, I'm talking about to the patient. Right. Yeah. And certainly, you know, we already know what those costs are, right? You're leaking urine and you're impotent.

And of course, depending on, technique and, that's and that's there are differences in the rates of reported incontinence and erectile dysfunction, but there's no, there's a well published data for the last, you know, decades that unfortunately, even in the robotic area, we we continue in having content.

So we continue to have significant erectile dysfunction after, price technique. So this is the rub is that if your treatment itself didn't mess you up, well, look, you would still go for it because, hey, you don't know for sure, but you got to give yourself a chance to cure it.

But if you are left with debilitating quality of life and it didn't kill your cancer, you're kind of in a worse position than if you had never had that treatment.

And so that's the part that I find to be a little bit, hard to swallow as a practitioner. And as a patient, because now your quality of life is, you know, which is actually the defining part of what makes a human, to not, have to wear a diaper.

You know, I think these are things that we as a field because we are really focused on curing cancer. And I think that's exactly where we should be mentally.

But it's a quality of life thing that actually matters to patients, maybe as much as the cancer cure part. So if somebody were to offer you a deal and they said, well, okay, you're, you know, you even and these are let's say these are your numbers, but let's say you're, you know, nine out of ten times likely to carry cancer to protect me.

But one out of ten times that, you're going to leave forever, or you're eight out of ten times likely to carry your cancer. But then you're like, you know, 100 times, going to, you know, have leakage.

Well, then you choose, right? I mean, it's a little bit of, your risk tolerance. That's what I get at, now in a Gleason nine case is much higher stakes.

So I guess, we're under no misgivings that your recurrence rate is only going to be 10% for the price ectomy, and only 20% with it. It's also pro. So you almost have to be assuming what's the next step after that.

And, you know, that's where I think it's a change in your mentality of how you think about this. Now that you have Tulsa of pros, an option. All right.

So Tulsa Pro goes into your research. So you researched. Let's not assume that you know anyone knows who even what that is. Right. So it is the tube that brings out your semen in your urine, right to the, through the head of your penis.

The instrument goes in there and you start kind of taking away, the prostate tissue or. I'm sorry, using ultrasound waves that, will take care of the cancer, so. Yeah. Cancer location, location.

It sounds like it. It is. Right. Well, so, you know, let me, just make a little bit of clarification on our last point, because I think it's really important here.

Tulsa as a technology is pretty amazing. Okay. It actually does do what it is meant to do, which is to kill cancer. And therefore, just biologically speaking, it does have a chance of killing cancer cells or where they are in the prostate.

And therefore, even for high risk cancers, every Tulsa institution in this country has some patients who have been treated with high risk cancer, at least eight, 9 or 10.

Right. And so, you know, look, we actually do know realistically that it can kill high risk cancer cells. Now, whether it actually achieves that or not, those outcomes depend on a lot of factors, variables that sometimes even have to do with the conditions on the day of the procedure.

So there it doesn't mean that just because the technology can kill it, you will get a cure. But I think it's a reasonable chance of trying to cure cancer with this technology.

Now, the way that I think the analogy works is that it's delivered through the urethra on the inside of the prostate. And assuming you can get to the cancer, meaning you, you know, where the cancer is, and for example, is not too far away from the urethra or there aren't intervening factors such as calcifications or pebbles that get in your way.

Then you have reasonable certainty that you're going to care that cancer, you know, that even going into the Tulsa, you know what I mean? You can actually almost predict an outcome of a Tulsa.

At least I can I can pretty much predict the outcome of what Tulsa is going to be before I ever step in and do it. How far out from the urethra can the cancer be so that Tulsa Pro is an actual viable option?

Yeah, the technical limitation of a, Tulsa is three centimeters from the urethra, measured, you know, usually through an MRI. Of course, with a new FDA approved feature called the boost.

There are some ways of getting, potentially a few millimeters beyond that. Reasonably speaking, because you have to allow for, gland volume swelling and things like that from the treatment, real time.

You know, we use three centimeters as a reasonable, measurement. Any direction. Well, Tulsa, of course, is, 360 directional, meaning that, it, the way to be of, of energy is the liver.

## Recurrence and Salvage Options

It's done in a way that potentially goes through 360 degrees of motion. So what that means is that, you know, if you think about the prostate in a three dimensional object, you can hit, the entire surface of the prostate, in one treatment.

That actually is a very much in distinction to many of other the focal therapies where, you know, essentially, you can recreate what we normally do for a radical project.

To me, in terms of treating, assuming it's all within that treatable volume of three centimeters out from the urethra, you can actually treat the whole prostate if if you so choose die with BPH.

So a guy with an enlarged prostate that's clearly causing urinary symptoms coming up, causing some level of obstruction. Also happens to have, prostate cancer.

It seems to me like there's a perfect candidate for this type of treatment. Yeah. I mean, it's as close to having, you know, two birds with one stone as the proper would say.

Right. So, you know, we know that, first of all, Tulsa has been, both studied and also used, for the setting only meaning non-cancer and is FDA approved for prostate tissue.

So certainly for guys who have BPH, they have been effectively true. But Tulsa, it seems to be a sweet spot then that if you are already going to undergo therapy for, you know, prostate cancer, you would do it Tulsa.

Now, of course, doing a process ectomy also will treat your BPH right. They say get rid of the offending, blockage. But of course, you're you're gambling with some risk of incontinence afterwards.

And therefore if you only have, you know, BPH, we don't consider doing a radical press activity for that. But of course, you know, with the, focal therapies, even even high few, you know, it's not unusual, that, centers will do, Terp or, Roto-Rooter type of deal to help with BPH before you go to, high school.

So I think that it's fair to say, you know, it's pretty unusual that I will do a Terp or something like that before, Tulsa. And, therefore, Tulsa could be an ideal thing for a man with, prostate cancer and obstructive BPH in-office procedure anesthesia, local or general?

And and and and, you know, catheters. What's the process like? Tulsa is known as an outpatient. So it's usually done at an imaging center, whether that's in a hospital setting, whether it's an outpatient setting.

I mean, it's an outpatient by definition, means you go home the same day you don't stay overnight for Tulsa. At least not in the United States. Having said that, you know, the setting might be different.

Whether you walk into a big hospital or whether you walk into a small imaging center. You know, it's done. You know, usually under anesthesia, like a general anesthesia, although there are variations even of that technique, whether it's full general, whether it's I. V.

sedation and monitoring anesthesia, things like that. Now, the key, of course, is that you're inside of an MRI machine, so of course you are asleep and comfortable for that person.

And during that time that, the procedure is taking place, afterwards, you know, you wake up and then you you go home once you recover from anesthesia.

So, you know, we budget maybe about two, three hours for each procedure, sometimes longer, depending on, the size of the prostate. An expected time of, that it takes to treat your, your prostate.

You do have a catheter in afterwards. And that, of course, is because you have, you know, swelling and things like that, that will otherwise not let up, even if you try real hard.

So of course, the catheter needs to stay in for some period of time. That period of time actually then will be dictated by the nature of your treatment.

Right. A lot of energy that will deliver to your prostate will, of course, cause more swelling. I would say that, you know, average time of, having a catheter in and in my patients is, you know, roughly about two weeks, mostly less than that.

And then occasionally more than that if you do have a large prostate. So I would basically say from a patient perspective, the time that you have a catheter in is, roughly the amount of time you have to have it in after a radical process, ectomy, which is usually about 1 or 2 weeks, depending on the center.

Now, what's really interesting, Doctor Gere, is that, you know, having done, you know, a lot of radical practice in these in my career, I've often found that patients complain about a lot of different things after their surgery.

When they have a process ectomy like they're nauseous, they're having pain, or maybe, God forbid, other, bigger problems. Complications, with that, also, since we haven't made any incisions, you're fairly functional right away.

Meaning, other than recovering from anesthesia, you're up and walking and even playing golf and doing what you want to do. So I found that almost uniformly, every guy complains about the catheter, the Foley catheter being in after Tulsa, but then very few after prostate complain about the catheter.

But that's actually because they're actually having other issues worth complaining. Like, you know. Right. So now they're complaining about their catheter.

That's actually a good thing. So you focus on the thing you can focus on, which is the catheter. And of course that

sucks attitude coming out. And it's like guys that see me post-process tech to me and they're complaining about their erectile dysfunction.

I say, you know, in the months after I say, you know, this is a wonderful conversation. I am so happy that that's your primary problem. Absolutely. Right. Right.

And we understand because we've seen it all. But, you know, at the end of the day, having seen the gamut of things that can go bad after surgery, you know, we're very happy if all they're complaining about is their catheter.

Yeah. Right. Exactly. Last question. Doctor Hong, and thanks again for your time. For, with with joining me here. You do or Tulsa. Tulsa. There's a recurrence that scenario.

And but we know that it's not systemic, so it's probably local. Still, there's some sort of local recurrence. What are the type of treatments, salvage treatments that are possible?

And I guess my I guess my real question is, can somebody get a prostatectomy after Tulsa? And if so, how ugly is that procedure relative to, like, radiation therapy?

And then and then prostatectomy after that? Yeah. That's a great question. And I think, it does speak to the fact that all guys should consider what happens when you have a recurrence, no matter what treatment you have.

So you always have to think about what's the next step. Especially if you get radiation, you always have to think about are there any surgical options, which, by the way, Tulsa Pro is probably one of your only and best surgical options after you've had a recurrence after radiation therapy.

But, look, you know, after Tulsa Pro, it really would depend on some of the anatomical factors. One thing that already sets that sets it apart from, for example, trans, rectally based high food.

Is that because we're doing it from the inside out, theoretically, the plane between the rectum and the prostate, which is something that can be quite dangerous after radiation or, even high food, that plane should be better preserved.

And therefore the prostatectomy after a Tulsa pro, theoretically is possible and has been done, in real practice. Now, having said that, because already, by nature of the kind of patient who, undergoes a Tulsa pro who already has had a protect me as an option and has chosen not to do it, I think, realistically, a lot of patients will not choose to have advice.

I think even if they were, given that choice, therefore the salvage procedure, you know, and believe me, in the clinical trials of, for the Tulsa Pro, there have been different things that people have done, including radiation, and including, salvage, Tulsa Pro or even, salvage, high funeral ethics, local, therapies.

## Final Thoughts and Where to Learn More

So I think the point is, anatomically speaking, there shouldn't be any thing that precludes you from getting, whatever option that was available to you before Tulsa Pro.

Realistically, of course, you know, because of scarring and other things that were specific to your cancer and the location and therefore how aggressive the Tulsa had to be on one side versus another, things like that, it could make a prostatectomy more dangerous.

And also even another Tulsa pro more difficult because you've had scarring down. You've had, shrinking in the prostate, things like that. So I would have to say that it's like fun or easy to do a salvage procedure after anything that we do and that of course, speaks to the fact that each surgeon that goes in there thinks that they're the last one to be in there.

But actually, it turns out that after, Tulsa Pro, which I've also done salvage Tulsa pros after Tulsa pro failures, you know, it is definitely feasible and safe and actually possible to cure the cancer as well.

Lovely, lovely. Doctor Hank, thank you so much for, you know, enlightening us on this procedure. You know, it used to be it wasn't that long ago when there was only two options.

Prostatectomy or radiation. And that's it. And now only within focal there is, I don't know, 4 or 5 of them. And more coming, more coming. So, you know, I wonder what's best right here.

These are your two options or no you got ten options. And good luck trying to figure out which one is right for you. But I have to say Tulsa Pro, I've been pretty impressed with what I've seen.

And folks that had Tulsa Pro so far in terms of, containing their disease and minimal to really no side effects afterwards, including their erectile function is back, no problem and so forth.

So it's impressive. How can people learn more about you? And if you have any final thoughts, go for it. Yeah, I think, you know, as with all new technologies, you know, patient selection is really important, trying to make sure that, you know, exactly what you're about to get into as a patient.

Right? Have fully informed consent. But that also means asking your own doctor who might have diagnosis cancer about Tulsa Pro. In addition to other options beyond just protecting radiation.

But certainly I think it's an individual basis. Certainly. We also turn away people who want Tulsa Pro, because their anatomy isn't right or their expectations aren't quite in line with what we think we can achieve.

So it's just about being honest and open and, and just knowing what your options are and why you choose the things that you do. You can certainly find me, you know, markhongmd.com, also my YouTube channel, markhongmd, and, you know, I, I'm very passionate about just making sure that the patient is centered in all of this discussion.

And that's really where it's not about what we want for you. It's really what you are empowered to choose for yourself. Lovely Doctor Mark Hong, thank you so much.

Thank you for having me. Thank you everyone for watching this. Yeah. Other I say that after every show because we only get the best of the best here in the summit for the summit. So thanks again for watching.

We have more to come to just keep viewing, really full spectrum. Everything has to do with prostate cancer, from diagnosis to active surveillance to treatment options. It's all here again.

Thanks again. Spread the word. Spread it to your friends. Spread it to your support groups, whatever. Whatever the, friends, family members or anybody who you love.

Thanks again for watching this. Doctor Geo Espinosa signing off. Much love.