PCOS and Infertility Overview

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Rollins, great to have you back on the Beyond Infertility Summit. I am very excited to talk about PCOS today. PC OS is one of the leading causes of infertility.

One in two women with PCO struggle with infertilty. So it's a really big number of women that are struggling. And it is so important to, have women have the awareness because I think at least what I've seen a lot is women don't always know that they have PCOS, right?

They were maybe given birth control at a young age and they never got a diagnosis or were never, like, educated on what this is and how it's going to potentially impact their fertility in the future.

So I'm really excited to dive in and just get your wisdom on all things PCOs and on how we can support if we do have a PCO in order to help start our families.

Thank you. I'm honored to be here. PCOS is my favorite subject to talk about, so I can't wait to dive in. Yeah, awesome. So how does PC OS contribute to infertility?

What is it about PC iOS that has anything to do with fertility? So it's generally the lack of ovulation. When you're not ovulating, then you can't get pregnant.

You need the egg to get pregnancy. PCOS is a very common cause for lack ovulations or anovulation is the medical term. And so women with PCOS consistently are not ovulating, and so therefore their chances of getting pregnant every month are lower and lower, depending on kind of how consistent that really is.

So anovulation is the biggest driver. Let's talk a little bit about an ovulation. What in the PC OS picture contributes to that? So both pieces of the PCOS picture actually contribute.

So the insulin resistance picture that happens related to PCS and also the high androgens. The high Androgen certainly contribute to the lack of ovulation.

Why PCOS Causes Anovulation

And so there's some schools of thought that say, is it the High Androgen that then cause the blood sugar dysregulation, which causes the Lack of ovulation or is it the blood sugar issue that causes the androgen issue which then causes ovulations?

Either way, both of those two pieces are contributing to the problem of lack of population. And when you have lack ovations, that's where getting pregnant is more difficult for women with PCOS.

Yeah, it's definitely like a chicken and egg scenario and they both kind of feed each other. So if insulin resistance is present, then it feeds the androgen excess and vice versa.

Yeah, that's actually that vicious cycle related to PCOS. We have insulin resistance causing high androgens, causing inflammation, and causing other parts in the body which then causes more androgen, which causes insulin resistant.

It's just a vicious circle that keeps repeating itself. Yeah. So women with PCOS, are they this like an ovulatory pitcher and the hormones that are contributing to it?

Are they just, Are we doomed if we've been diagnosed with pcos and really want to have a child? There are so many options. First of all, there are women who want to do it more natural.

And so when they want a conceived more, natural, I really focus on who you have insulin resistance. Do you, have I high androgens? Do have gut issues?

What are those pieces of the puzzle that are making up your PCOS diagnosis? Because if you start to break, like I said, that vicious cycle and you fix insulin resistance, if that's what's part of your PCOS, or you lower your androgens, then you will be able to cycle naturally and also potentially ovulate as well, which will improve your fertility as Some women want to try things a little bit more natural.

Some woman are open to like ovulation medications, things like Clomid or Famara or even injectable medications. And some women walk to ultimately do things, like IVF.

So there are a lot of options for sure. It's not a diagnosis that says you'll never have children by any means. I can tell you from a personal standpoint, I have PCOS and I four children.

It's not a no for sure. Yeah. I often say, at least in what I've seen, like 99 to 100% of our people with PCOS get pregnant. And so I'm of the belief there's a hidden gif PCS.

and I like to frame it in that way because everything just seems so doom and gloom, especially when been struggling with something for so long and and people say oh you just need to be on birth control and that's like the last thing a woman who wants to get pregnant is going to agree to so it's really like fun to see them transform that and be able to start ovulating and eventually do get pregnant.

Breaking the PCOS Vicious Cycle

But the fact that they have lots of extra follicles in their ovaries is the hidden gift that. They have the potential to access. Yeah. I love that I focus too on PCOS as being a PCS warrior, right?

There are some serious benefits to having PCOs. Like women with PSOS have good quality eggs. They tend to have a lot of them as opposed to someone who might have like hypothalamic amenorrhea or might just have low…

They have great eggs, good-quality eggs it's just they got to get them to be kicked out of the ovary. And if you think about it, PCOS warriors with the testosterone are actually really good at athletics.

If you look at Olympians, there was a cool study done a couple of years ago that said there's a high percentage of Olympian athletes who have PCO-S because that stronger testosterone that is present is actually very good for muscle building, very strong endurance.

So I just spin that concept of PCOs is you're a hardcore warrior. Like you are awesome. There's so many benefits in some ways that You can do the other women cannot.

It's about hacking your own biology and understanding how can you then. make it work for you if it's fertility is the question, or if its just healthy is a question.

Like how do you maximize your own biology? Yeah, absolutely. What can women do to help support conception with PCOS? So making sure that they get those labs done by their doctors that really looks at the metabolic side of PCS.

what happens often when people go to a standard OB is they say, okay, here's your estrogen, progesterone, testosterone. Here you have PCUS. You want to try to get pregnant, try for six months, come back when you're at

this point.

But truly, to give them a real true chance at trying, you have to understand, do they have any metabolic dysfunction that comes with it? So you need to be tested for inflammation.

You need be test for insulin resistance, gut health issues. So, need you be testing for this metabolic picture because it doesn't matter if someone's trying for 6 months if they had pre-diabetes, for the health of their pregnancy also they need to really optimize this.

So if you really wanted to go, okay, how do I make my body ready for this? Making sure you understand what is driving your PCOS symptoms, what's driving that diagnosis for you, because it could be very different than the woman next to you who has PCOs.

And throughout lifetime it changes. So making sure you're always really on top of getting that metabolic workup. And then I'm a big component of using supplements too that really help optimize nutrition.

Cause we're learning more and more is being really, it's already been known, but like really getting out there about how important nutrition is for fertility.

And not only just to make sex hormones, but ultimately for a quality and to improve your overall health. So I'm a big component of looking at what are you eating?

Are you able to eat to get the maximum number of nutrients that you need? Or should you consider supplementation? Cause you just can't get it in your diet.

And then I think the other thing that's really important that happens a lot is women get really, okay, what I'm going to do, I am not going put myself around and get exposure to any toxins and I will not go anywhere and work out crazy hard.

They sometimes get a little bit overly invested in this sort of journey and it can sometimes contribute to their cortisol being off because you have these sort feelings like my friend got pregnant because she does cardio four days a week, I should do cardio.

Testing and Metabolic Workup

And so that doesn't necessarily work for you. So it might stress you out if you hate cardio, right? Or it's just like two months. Yeah. I think that's a very personal journey.

You have to put that part of it too. The way that you go through it is going to be different than your friend. A lot of times when women are considering having a baby, they often will put themselves on these very regimented lifestyle.

be comfortable in that journey. If you're doing something like you hate Zumba and you sign up for Zuba classes, it's going to be a disaster for you hormonally.

Yeah, do more of what you like. Please don't force yourself. Within reason, and even like food sometimes becomes so regimented. And in some people's cases it needs to, but in other cases, You can't over-regiment, you can over supplement and over exercise your way to conception.

I think that toning it down and really finding that balance in everything that you're doing supports that journey in a more easeful way. Yeah, and it's important to find somebody, a provider who meets the needs of what you are looking for because there are patients who have, okay, they're okay with doing natural up until, say, clomid, but they won't do IVF, or they have sort of their own personal ethical boundaries, so what they are comfortable with.

So, starting off that journey with the right provider that's going to be in line with what you want to do is important,

because you don't want show up and say I don' feel IVS is the thing for me, and the provider is like, IV.

And the providers, that is what we do here. Yeah, so you kind of define also that balance to where it meets your own personal values. You mentioned, I want to go back to a couple of things that you said earlier.

There, you mentioned inflammation as one of the possible underlying things we might find in a metabolic workup. In terms of like, someone who maybe doesn't know they have PCOS and you suspect it, or someone that is diagnosed with PC OS and your like, okay, what else is going on?

What kind of testing do you think is really necessary for you to get that like big picture metabolic functional perspective on that person in front of you?

Yeah. So if I think that they PC US, I want to test them for PCS. I wanna know, first of all, do they happy regular periods, right? because you need that for the diagnosis.

And do they have levels of androgens that are elevated? So you're going to do DHEA, you are going test total testosterone and free testosterone. You're gonna be looking for those androgyns that elevated because need to make a diagnosis?

Now, if someone came into me and they had irregular periods and evidence of hirsutism, they've got hair on their belly or they got chin hair, and already met the the criteria so it can be physical signs or it could be blood work that define the high androgens.

And then I will definitely test them for those metabolic labs like we were referring to. When the state comes back as negative for PCOS, and they still have high inflammation, they're going to start looking into what do they eat, what did they put on their body, What are the chemicals they may be exposed to?

What if they have had lime or mold 10 years ago? So what is going on in the environment, really focusing on the environments for that patient to figure out what this inflammation is from.

And inflammation can also be cortisol dysfunction. So it could be also that the patient that's maybe trying to lose weight and exercising seven days a week and eating two carrots.

Some of that contributes to inflammation as well. So understanding if they're not a PCOS patient, they may just have metabolic dysfunction and therefore having to look at those parameters as Well.

And then in terms of the metabolic panel, what do you like to test on there? Let's get into the nitty gritty. Yeah, so CRP, which is the measure of inflammation, right?

I do fasting leptin levels, fasting insulin levels. So looking at those two ghrelin lepton insulin kind of parameters that have to do with blood sugar balance.

I like the cardio IQ, which is a more advanced lipid profile, really understanding what is someone's cardiovascular disease. Because we know that PCOS has a higher chance of cardiovascular diseases as we age.

And we don't want to just forget the 20 year old. Just because you're 20 doesn't mean you don' t need to have that checked. Yeah, and like preventing.

On every PCS patient.

Pregnancy Risks and Monitoring

Really. And then sometimes I dive into like testosterone because that can contribute to metabolic dysfunction of someone. And every once in a while I'll do like growth hormone.

It just depends on the age of the patient as well. Okay. Nice. Supporting someone to have a healthy pregnancy with PCOS, what do you think is the most important?

I know that we've touched a little bit on all of it, like diet supplements, herbs, exercise, lifestyle pieces. But if we were to get granular with it what are the key things that people should pay attention to specifically with the PCOs that isn't maybe necessary in women with other fertility challenges?

So understanding that it's a metabolic concern, then you know you'd be, while you're pregnant, you are at increased risk for hypertension in pregnancy, for diabetes in a pregnancy.

So, understanding you'll be watching those more carefully. If you already know that you had blood sugar problems earlier, like we had pre-diabetes, I would as an OB provider be checking someone for gestational diabetes earlier in the pregnancy than 28 hours.

So I'd be monitoring them, maybe even do it in the first trimester, but certainly by 20 weeks and by definitely 28 weeks to look for that insulin resistance to turn into gestational diabetes.

I would be more conscious about their blood pressure, understanding could they develop preeclampsia? I will definitely be conscious more about mood issues too, because PCOS, you do have some issues related to mood and pregnancy can be hard for people.

It can a hard time too. So not everybody is like walking around going, this is the best thing that ever happened to me. Some people have hard pregnancy.

And so if they have depression or anxiety, really being on top of, does that patient need to be treated for their depression and anxiety? Knowing that we need support their gut also during pregnancy, because that's important for the mood as well.

And then trying to understand, is there any other components of their PCOS that would need conscious of during pregnancy. For example, there is a higher chance of thyroid disease in PCOS women.

An untreated hypothyroidism is really bad for a fetus. So we need to be on top of that as well as understanding we to look for thyroid diseases. And so understanding those things that comorbidities or the things can occur while someone is PCS and the complications related to pregnancy is important for good provider to say, okay, we don't need it not just do our standard See in four weeks, see it 20 weeks.

No, we need to be looking at that and checking things that are a little bit more appropriate. I would check vitamin D levels because vitamin d is deficiency, very common in PCOS.

And it's amazing when you start checking people in pregnancy, how low the vitamin is. That baby is taking quite a bit. And I always check vitamin D levels in PCOS patients while they're pregnant just to make sure that they are getting enough for themselves and that their growing bones in the baby.

In fertility and pregnancy, vitamin d has got a lot of research coming out about how it supports egg quality, implantation, sperm health. There's just so many ways in which it's impacting fertility.

So definitely, if you're already pregnant, really important. And if your not pregnant yet, don't get your vitamin D checked. And check it every once every year, once you're not pregnant, right?

Once you've done having a baby, it's important to be on top of those. Like I said, part of this, I should have mentioned in the metabolic labs as well.

really important to have these series of labs once a year at your annual. Yeah. And I think it blows my mind how many times people come from doctors and they're like, oh, I go for my checkup every year.

I'm like how come we don't have any data? How come you have a CBC and CMP and that's it? Sorry, and I went into Dr. Lingo. C&P is comprehensive metabolic panel and CDC is just like the red blood cells, white blood It's really common that people aren't being checked and with the, like you've been saying, the metabolic issues, blood sugar, insulin, leptin, things that are very impactable when someone has PCOS, it's important to check regularly.

And then the cardiovascular health, of course, is very important. Yeah, and the reason they do that is the standard says that below 40, you don't need to do this sort of metabolic workup, right?

And that's also because Western medicine sees PCOS as a GYN problem. It should be considered a gyn and a metabolic problem, an endocrine problem really.

Until it categorizes that, they're going to keep missing the fact that these women really need prevention, not waiting until they have a 50% chance of diabetes at 40. Half of them end up diabetic.

It makes no sense to me. This is why I love integrative medicine because it's really about prevention of disease, reversal of diseases, let's wait till our hemoglobin A would C hits.

We're on the edge for a lot longer than we are before getting diagnosed.

Using CGMs to Understand Blood Sugar

That's why I love using things like technology. I use CGMs and continuous glucose monitors a lot with PSUS patients to help them understand blood sugar balance.

Sleep aids, it could be like an aura ring or Apple watch or whatever it is, device to understand these metabolic parameters because if you really learn what works for you, I know the secret to me.

potatoes, but sweet potatoes with olive oil and greens. So I can understand why, what works for me. Yeah. Can you talk a little bit about the CGMs? Cause I think that's very interesting in like how people can help understand their metabolic pattern, their blood sugar, stuff like that.

How do you guide people in figuring out what their body feels good and not good with? Yeah, so continuous glucose monitors, you just put it on the back of your arm.

They're little, they look like little white patches. There is a needle attached for them. And so you wear them for 14 days. The one monitor lasts about 14. So when I talk to patients about starting them, I usually say, just eat what you normally eat in the first seven days and it's going to start tracking it.

It can be tracked on your desktop. I can, we tracked it your phone on. You can start seeing what is my waking up blood glucose level? What is. glucose level after I eat breakfast?

What is my glucose when I go work out? When I'm in the middle of a meeting with my boss? And you're looking for not only how high is it rising from the baseline, but also how long is remaining elevated?

So everybody's is going to go up when you eat, But is that going up sky high or is saying persistently up for two, three, four hours, those are those concerns where you start going, what's the thing I did that's correlating with this?

So for the first few days, I just tell people, just track it. We'll take a look at the data. Let's see where we can start making some changes because sometimes it's about, for example, if I gave you the sweet potato example.

That's my example when I wore a CGM. I ate a sweet potatoes and it shot up to 220 in my blood glucose. And it was there for three hours. It just slowly went down.

And the next time I had a sweet potato, I decided to have olive oil in it and greens, and I didn't have that giant spike. I have a nice gradual up, then it came on back down within two hours.

So I combined it with some fat, combined with it some greens. And for me, that slowed the absorption of the glucose. It was a little bit better option for who loves sweet potatoes.

Certainly enough, it was better than Oreos. multiple times apart so I could see if it was just a fluke and it didn't go up as high as it did for me for sweet potatoes.

Wow. Yeah. Me, right? It was better. Better than sweet potato. Oh boy. So I use that information then understand, okay, maybe someone's waking up, blood sugar is elevated.

Maybe it's their breakfast choices. So they're eating too late at night. If you're a data person that helps you make changes because you understand what's happening to your body, it is really useful for those patients to go, hey, maybe next time I have oatmeal, I should have an oatmeal with chia seeds and berries because it seems to be a little better for me for blood glucose levels than just oatmeal or making these sort of changes that might happen.

I like it for people who want to slow the timeframe down on how do I figure out what I can eat? Doing it on your own, where you would be journaling. If you decided to do it your on, you'd be writing down what you eat, what symptoms you had, how you felt, were you having shaky episodes, like what's going on with those symptoms and slowly figuring out how to eat more for insulin resistance, for example, which can take some time.

So I like CGMs because they really give you real-time data. And I don't, I'm not a big fan of using them forever, right? I Don't think everybody should be wearing them non-stop because that a little bit neurotic about.

That was going to be my next question. But I can really help patients who are, man, and I feel like I am doing everything right. What is the problem here?

Where's the gap? So, so I find them very useful for my patients in my practice who, especially those women who may be also perimenopausal and blood and insulin resistance and blood sugar dysregulation are very common as you age, as that estrogen goes down.

So I find it really helpful if you have a PCOS and perimenopause lady, like it's a great tool for them. Now for the favorite part that everyone loves to talk about, supplements.

Let's talk supplements for PCOS if we're trying to get pregnant. What are your favorite ones? Who are they helpful for?

Supplements for PCOS Fertility

I always like to emphasize the who because I think a lot of people will hear these lists and just go out and get everything. And we as providers know that's not the way to do it.

Yeah. Like we can dive into the supplement piece and just talk about what are the ones that you found most success with and then who or like what kinds of things were happening that they were most helpful for.

Part of what I recommend for supplementation is certainly related to, do they have insulin resistance? Do they inflammation? And do have gut issues? What are the other components?

Because across the board, I would say I almost always suggest inositol. Because in inoxytol, there's not really a lot of downsides to it. We know that the data supports that there is good improved egg quality as well as ovulation related in to inocytal.

So, I don't have a problem saying to every PCOS woman who wants to conceive, go for inositol. At least two grams, right? You need to at least get two gram.

So there's very little side effects, maybe some gas pain, some digestive discomfort, but really very few side-effects to that. Inositols is always a favorite of mine.

I also always suggests women, no matter what's driving their PCOS on Omega-3, if you're not someone who eats a lot of Omega 3 fats, making sure, cause that will also help with inflammation, which almost everybody has inflammation in their body, in the world we live in.

So Omega threes. like fish oil or flax seed, whichever you prefer from an ethical standpoint is fine, but I certainly think omega-3s are very valuable.

If you have any nutrition issues, like you don't eat a very well-browned diet, you should be taking your prenatal anyway. So pre-natals can often help with overall balancing sort of any nutritional gaps you may have, because it'll give you some vitamin A, vitamin B, folic acid, it will give some of those other vitamins that are useful as well.

I think a multivitamin is also very helpful. And then B complex is almost always a very important option too, because most people need these for both sex hormones and neurotransmitters.

So B-complex is always very valuable one as well, unless you're just somebody who just eats a ton of bell peppers and really kills it in the B vitamin department.

It'd be really helpful too. And the rest of the sort of supplements I think are really tailored towards that specific person. Certainly talk about NAC.

We can certainly talk vitamin D. Let's say, as we said, if you're vitamin deficient, you better just be on a vitamin. That's just for sure. But the other sort of specific supplements are really geared towards.

where you are, do you have a metabolic issue, what are some other components that may be related to your PCOS? So those ones I usually suggest more personal based upon the patient specific.

So in terms of the more specifics, NAC, who I know that there's a lot of research on NEC and PCOs. There's research NIC as just a high quality antioxidant for and quality, anything else?

Like how do you tailor this to people deciding do they need it or not need? Yeah, so if they have other metabolic issues, say they had high blood pressure or maybe pre-diabetic or other metabolic dysfunction, we know that their mitochondria take a hit, right?

They have some serious mitochondrial health issues. I am very low threshold for adding NAC for that. Maybe if you're a little older, trained to have a baby, that's also very helpful too for just oxidative stress and helping our bodies keep up with energy requirements.

So I'm also a big fan of NIC. Yeah. I mean, it's more for what do they have other metabolic issues? And certainly if your CRP is high, this is a very useful supplement as well, NEC.

Some would argue, I guess some people just put it on and they did do it anyway for all fertility patients. And is there really a downside to it? Probably not.

NIC is pretty well tolerated. It's amino acids, right? Amino acids are in proteins that we eat. So is it one that you're going to likely get into harm?

probably not Yeah. I feel like supplements are tricky. You can take a lot and it's supportive, and then you can a take lot. And it is working against you.

basically like the number of supplements that people take has been shown to cause oxidative stress and deplete egg quality, right? So there's that threshold of, yes, this is the right thing for us and it'll be amazing for you.

And then, no, let's like drop that off just for the sake of not adding stuff that your body has to deal with. Yeah, I still find like, where's the balance?

Like always trying to weigh the scale of is this the right thing? Do we absolutely need it? Is it desirable or is it not a necessity? And try to weigh that out regularly for people.

Yeah. I think that where I find the concern is that patients will often take say like 10 supplements, but they're taking a supplement doesn't have enough of that ingredient that actually is used.

So for example, there's a lot of like. hormone balance supplements over the counter. And they have Chaseberry, but it's like Chase Berry 50 milligrams.

That's nothing. Yeah. It's not going to do anything. So I find, so when I start going through people's supplements, I'm like, yes, Chase berry is fantastic, But it doesn't do Anything at 50 mg.

If you have a headache and I give you a quarter of one tablet of ibuprofen, you're going To be like my headache didn't go away. It's not a therapeutic dose.

So where I see in the clinical standpoint, I just see a lot of people that are like, oh, i saw this on Instagram.

Personalizing Care and Provider Support

I'm going to take this one. And they don't realize they're not even getting enough of the active ingredient to do anything. You may not need 10, you might actually need four really good ones.

Absolutely. Yes, exactly. So really tailoring in it. Are there any other supplements that you're a fan of or herbs? You mentioned Vitex, which tends to be potentially a good herb for people with PCOS.

What's your take? I often use Vitax for who are trying to get regular cycles, right? They really don't want to do an ovulation medication. They want continue to have regular cycle and it may be that ultimately they're progesterone is the issue.

Vitex or Chaseberry for that. Supplements for like fertility, you can go down. There's a lot of different options. We could talk about vitamin E, we can talk, about there's even herbal options, You can even talk Shashanda like from an Ayurvedic medicine perspective.

Like there are a it becomes where it's really personal to that person. And it is important to make sure that you, like I said, supplements really supplement nutrition, but it doesn't make sense to take if you're eating something and getting it appropriate levels.

That would be one thing to mention is you could actually get nutrient testing, which is often covered by insurance. with companies like Genova, and I don't work for them for any of these, just throwing it out there for people.

But you could also get nutrient testing, which I sometimes do with fertility patients to understand, maybe they're actually thinking they are getting enough amino acids, but they really are not.

Or they aren't getting vitamin B, or they weren't certain nutrients that they think they were getting, so therefore this is the perfect example of supplementation.

Absolutely. I'm telling you, make sure your OB is on board. Whoever you're going to see for your pregnancy is onboard because there's sometimes some OBs who are a little less open-minded to you being on NAC and probably need to make that you also run it by your provider to say, hey, this is what I want to try, see if it improves my ovulation and egg quality and overall health.

are you okay with me continuing this regimen? Yeah and you want to find that right team that is understanding of what it is that you're doing and how it's supporting you or not and being able to have those conversations because I've seen a lot of people struggle with, oh, my OB's not on board or my RE said stop all my supplements.

And yeah, sometimes that's necessary and sometimes, that is not the best thing for them. So always finding that team that will support you with your vision and your goal is really helpful.

Yes. Thank you so much for being with us today, Dr. Rowland. It's always lovely to chat with you and hear all of your wisdom and what you're doing in your practice.

So thank you for meeting with with today. Thank Thank you for tuning in to Doctor Talks. We hope today's episode has enlightened and inspired you on your path to optimal health.

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