



The Endometriosis Podcast | Episode 10 | Beyond Estrogen Myths: Rethinking Hormone Therapy and Endometriosis

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Transcript

Dr. Nick Fogelson: [00:00:00] Hello, this is Nick Fogelson.

Dr. Shanti Mohling: And Shanti Mohling.

Dr. Nick Fogelson: And this is The Endometriosis Podcast, episode 10 from Portland, Oregon. Shanti, I am so glad to be recording again with you. We're gonna have a great podcast today.

Dr. Shanti Mohling: Likewise, And I noticed you just said we're recording from Portland, Oregon. I think we should talk about that.

Dr. Nick Fogelson: I know, you know, I'm looking out my beautiful window today. It is a blue sky. I can see a beautiful view of Mount St. Helen's, and I'm not seeing any fires. I'm not seeing any riots.

Dr. Shanti Mohling: I don't hear any gunshots

Dr. Nick Fogelson: I hear no gunshots. There's a bunch of people drinking medicinal or like tea and coffee down on the corner there. There's Powell's Books right down the road.

Dr. Shanti Mohling: Absolutely. I don't see any frogs jumping off roofs.

Dr. Nick Fogelson: No, you know, if you go down to the ice building, there'll probably be a bunch of people in uniforms in, excuse me, in unicorn costumes and [00:01:00] frog costumes, jumping around and making peaceful protest, as is their constitutional right.

Dr. Shanti Mohling: Oh, and there will also be uniformed people down there too, undoubtedly.

Dr. Nick Fogelson: Exactly. We're saying all this tongue in cheek, but we realize that right now the administration of the United States is painting Portland as being some sort of hellhole, where there's horrible violence and fires and everything, and it's, it's just an absolute lie. And I, I, I worry about it a little bit when we, when patients come from all over the country, that they may worry, they're coming into a difficult situation. And all I can say is we live in a great city. We're not on fire. Everything is going great here.

Dr. Shanti Mohling: Yes. Everyone who comes is so pleasantly surprised and goes to our rose garden, or goes to our Japanese garden and eats some of the most incredible food you can find in the world. So I, I would say for me, living here is really still a blessing. The nature that we have, the proximity to mountains and ocean, and really just this very interesting city.

Dr. Nick Fogelson: Portland's fabulous. There's really great food. We have James Beard [00:02:00] Award-winning restaurants I always send people to. So don't worry about Portland if you'd love to come. In fact, lots of people come here when they have surgery and come, you know, four or five days prior to the surgery just to enjoy a few days of Portland or up in the Columbia River Gorge and, I mean, there's some political action going in like two blocks of the city in its peaceful protest. Even that is not, not very significant. You know, the vast majority of our city is just totally normal Pacific Northwest City. That's wonderful. So it's not, not a concern. And every time I hear from Christie Noam, or from Donald Trump or something about how horrible Portland is, I'm like, maybe you should come visit because I think you're watching, you're watching some pictures from, you know, six years ago.

Dr. Shanti Mohling: It might be transformative.

Dr. Nick Fogelson: Yeah, I mean, during the George Floyd protests, we had some pretty active protesting. But Portland's always been a very politically active city. I mean, it's a pretty liberal

city and there's always been. mostly peaceful protests. Occasionally there's some people doing some stuff they shouldn't do, but that's not the norm. And if you look anywhere in this country, when you have tens of thousands of people [00:03:00] protesting something, there's usually a few of them doing some shit. But mostly they're not. And that's always been the case for Portland as well. So you're, we welcome everyone to come to Portland, get great care with Dr. Mohling or myself. And you're, not only are you gonna get great endometriosis care, but you're gonna have a great time in Portland.

Dr. Shanti Mohling: And it will still rain in the winter.

Dr. Nick Fogelson: Yes. Portland is rainy.

Dr. Shanti Mohling: Truth told.

Dr. Nick Fogelson: So let's talk about our topic for the day. What we wanted to talk about, Shanti, and we're gonna... Dr. Mohling is gonna lead this conversation mostly 'cause it's really an area of a lot of expertise for her, and I'm gonna learn a lot from her, I think, in this conversation is hormone replacement in either naturally menopausal or surgically menopausal people who have endometriosis, because there is sort of an overarching idea of like estrogen bad. in people who have endometriosis, and particularly when you're talking about your primary care physician or maybe a general ob gyn who isn't very thoughtful about endometriosis, and they're just like, oh, you have endometriosis, can't do hormone [00:04:00] replacement. And even though there's some underlying reason for that thought process, a much, much more thoughtful way to go about it is more appropriate and is gonna be leading to better patient outcomes and patient symptoms. So, Shanti, tell us a little bit about it and what's your philosophy on hormone replacement in people with endometriosis.

Dr. Shanti Mohling: Excellent. So let me back us up one moment here and let's just talk about hormone replacement in general. So around the year 2000, 2001, we had a big study that came out, the Women's Health Initiative. And following that study there was this kibosh on all hormone replacement and many, many women were taken off of estrogen and suffered, had hot flashes, had vaginal dryness, had worsening symptoms of osteoporosis and bone loss, not to mention maybe some mood effects and vasomotor effects.

This was all based on [00:05:00] a study that looked at equine estrogen, Premarin, combined with a synthetic progestin, Provera Medroxyprogesterone is the other term. Medroxyprogesterone acetate. So it's synthetic progestin. And the long-term fallout of this data has been really, really interesting. And, and one of the things that we've learned is that in fact,

women on estrogen alone may even slightly decrease their risk of breast cancer. And, progestin has a relative risk of somewhere around 1.5 for risk of breast cancer, but a bioidentical progesterone does not seem to have that same effect. So we are now really responding differently to the fallout of all the data and subsequent data showing that you can do a combined hormone replacement quite safely. And in fact, a recent meta-analysis from this past year done by Barbara Levy looked at [00:06:00] all of the methods of hormone replacement. We can see that a topical bioidentical or iso molecular estrogen combined with a bioidentical progesterone is relatively very safe. Progesterone alone will decrease your risk of breast cancer. Estrogen alone will decrease your risk of breast cancer. For some reason, the combination may very slightly increase the risk. It's very curious. And then there are all these other factors that you have to think about.

Dr. Nick Fogelson: And how much of it was the synthetic progesterone because the WHI was again, a synthetic progesterone. But we can give people bioidentical progesterone and those are gonna have some different effects.

Dr. Shanti Mohling: Right. So at least in one subset of data, a bioidentical progesterone combined with estrogen somehow is slightly worse. Now, if you have a uterus, you have to be on both. There's some subtleties there that I think are still being worked out, but overall, the risk of estrogen and progesterone, both [00:07:00] bioidentical or iso molecular, is very low.

Okay. So that's whether or not you have endometriosis. Okay? And if you have a uterus, you really have to still be on a progesterone in addition to your estrogen.

Dr. Nick Fogelson: Yeah, and, and let's just kind of explain that for the audience, is that estrogen is kind of the fertilizer for the lining of the uterus. I was taught in residency and I train in the south, so there's other south southern euphemisms, but the estrogen is the, is the fertilizer and progesterone is the lawnmower.

Dr. Shanti Mohling: Oh my God. I love that.

Dr. Nick Fogelson: And so, estrogen basically causes the uterine lining to grow, and progesterone kind of makes it all ordered, like if all you have is estrogen, it'll get all thick and wooly. But if you have estrogen and progesterone, you'll get a fairly thin ordered lining. And so if you're fertilizing and mowing the lawn, you can have a beautiful lawn.

If all you do is get progesterone, the lining gets really thin 'cause you're just mowing it to death and it's just scalped down to the earth. And if all you give it is estrogen, all you do is [00:08:00]

fertilize it, but you never mow it. You just get this huge jungle of a lawn. But if you get estrogen and progesterone, you can get a nice green lawn.

And so...

Dr. Shanti Mohling: Not only do you get a jungle of a lawn with estrogen only, but you might get some really bad, bad weeds in there too. Like cancer.

Dr. Nick Fogelson: Right. And if you fertilize a lawn a lot and you put too much in one spot, it can get so grown that it outgrows its buds and then you get a dead spot. And so that's sort of where the metaphor goes on. So let's carry away from the metaphor. If you take estrogen alone and you have a uterus, you're actually causing overstimulation of the lining of the uterus, and you can predispose to develop what, what is a endometrioid adenocarcinoma, which is the most common type of uterine cancer. And for that reason, when we give hormone replacement to someone who has a uterus, the standard of care recommendation is that you also use a progesterone.

Dr. Shanti Mohling: Yeah. Absolutely. And, you've given us such a beautiful metaphor. Let's now take it a step further because. Here's what we're really talking about is [00:09:00] endometriosis. So endometriosis is also hormonally driven and hormonally sensitive. So as we know, estrogen will drive endometriosis and we know that there is progesterone resistance. And so you almost need more progesterone than usual to stabilize or prevent that growth of endometriosis.

Dr. Nick Fogelson: Are you putting your, and, and this may be a learning point for me, if you have a hysterectomized or a non uterus postmenopausal patient who you're giving estrogen replacement, are you routinely putting her on progesterone as well?

Dr. Shanti Mohling: 100% and we're going to talk about some data.

Dr. Nick Fogelson: Well, then I need to probably do that

Dr. Shanti Mohling: Absolutely. So, okay, so this is a very beautiful starting point. I'm gonna give a little scenario, a little case today. I recently did a consultation, Dr. Fogelson. Nick and I do free consultations online for patients who are interested in thinking about coming to this dangerous city of Portland [00:10:00] that we love dearly. And so I did a consultation with someone to see if she wanted to come to talk about really hormone replacement, more than she wanted to talk about... And she's already had surgery, so let's hear the story. She's a 50-year-old woman. Six

years ago she had a hysterectomy and excision of fairly advanced stage endometriosis. She kept her ovaries at the time. She was told that she could not use hormone replacement therapy because the margins were close, particularly at the vaginal cuff, and that she could have a recurrence of endometriosis if she used hormone replacement. So she wondered what my opinion was of that. Let me ask you, what, what's your opinion?

Dr. Nick Fogelson: Well, the moment I hear another surgeon say, well, we left close margins, or we left certain diseases behind in certain areas, I'm immediately kind of wondering, okay, is [00:11:00] this really as skilled a surgeon as maybe... I mean, I don't want to toot our own horns, but like, I don't ever say that, like I remove the disease that is there. If there's endometriosis that's invasive into the vagina, I'll remove part of the vagina. It's like the vagina is very long and stretchy. You can lose the top quarter of it and you won't even notice.

Dr. Shanti Mohling: It's profoundly resilient. In fact, we know this from patients who have Mullerian abnormalities, so they're born congenitally with maybe just a dimple in no vagina. They can form a vagina just by using a probe or sitting on a bicycle with a probe kind of thing. That's at least in the old days, right? It will develop because it is so stretchy and accommodating.

Dr. Nick Fogelson: Right. And so, I mean, obviously it stretches big enough for a baby to come out of it. So if someone has endometriosis invasive into their vagina, I have no concerns about cutting out part of the vagina. But I did oncology training, like upper vaginectomy as part of a kind of cancer training and really advanced endometriosis surgery training. People [00:12:00] that come from a pathway of sort of just being gynecologic surgeons who get pretty skilled and maybe do MIS fellowship but don't really get a lot of endometriosis surgery training may not be comfortable with that, and, and they shouldn't do surgery they're not comfortable with, but nonetheless, if they say, well, the disease is right up to the vagina and I think there's disease still in the vagina, I'm like, well, I, I would start out with maybe what we should be doing is reoperating and really cleaning that up and removing the tissue.

I think that once the endometriosis is completely removed, I'm generally pretty comfortable with putting that patient on a hormone replacement.

Dr. Shanti Mohling: Indeed. Okay. You had a great answer and you and I, not surprisingly, are aligned. She has deep dyspareunia, so she does have pain at the top of the vagina. She also now has pain in the vagina from vaginal dryness because she's not allowed to be on hormone replacement. So there's, it's twofold. And she has a little bit of bowel pain and she had a shaving of her bowel, but not, probably not full thickness excision. [00:13:00] So here's what...

Dr. Nick Fogelson: which might have removed it all or it might have. We dunno exactly.

Dr. Shanti Mohling: Exactly. My opinion that I offered her was number one, in order for me to treat her, I would, I would wanna do an exam. I would wanna know, are there any physical exam findings? Is there nodularity at the vaginal cuff or, or am I able to locate any disease? Now, some disease is not gonna be reachable by a manual exam, but a lot of it is, particularly when we're talking about her experience of, of pain with intercourse or deep dyspareunia.

Following that, I suggested that it might be reasonable to consider re-operating and really fully removing all of that disease.

Dr. Nick Fogelson: But you're gonna find out when you see her in person, you do a vaginal exam. She's either gonna have a very soft vaginal cuff and it doesn't hurt her when you touch or you're gonna touch, it's gonna feel indurated. And she's gonna jump and say, ow. Because if the disease is fully removed, you should be able to do a pelvic exam and it shouldn't hurt her. [00:14:00] And not everybody knows that. I mean, I have patients that, you know, they have a hard spot in their vagina that really hurts, and then the gynecologist just says it's normal, or it says

Dr. Shanti Mohling: Scar tissue...

Dr. Nick Fogelson: Scar tissue. It's like, no, that's endometriosis

Dr. Shanti Mohling: Yeah, the vaginal cuffs don't usually hurt.

Dr. Nick Fogelson: Correct. They really shouldn't.

Dr. Shanti Mohling: Yeah. Okay. So I told her that, number one, but number two, and I think this is very salient for today's conversation. Say she just for some reason does not wanna reoperate, can't afford it. Like what, what, whatever reasons isn't gonna reoperate, can she still use hormone replacement? And I would say having done a recent review of several articles that support what is my instinctive philosophy is yes, she can.

Dr. Nick Fogelson: How old is this patient now?

Dr. Shanti Mohling: 50.

Dr. Nick Fogelson: And does she have ovaries?

Dr. Shanti Mohling: Yes.

Dr. Nick Fogelson: But no uterus?

Dr. Shanti Mohling: Correct. So, in one of the studies I looked at, which was actually out of Korea, and they did a retrospective analysis and they had 10,000 in each group. So they had menopausal patients. They made sure they were at least a [00:15:00] year past menopause and 10,000 in each group with and without endometriosis. And, oh no. Both groups had endometriosis with and without hormone replacement therapy and, and then different variations of hormone replacement. What they found was that estrogen plus progesterone did not increase the risk of ovarian cancer. Okay, so estrogen alone in the setting of having a history of endometriosis, which also increases the risk of ovarian cancer. Estrogen treatment increased the risk of ovarian cancer. Estrogen plus progesterone did not. And there's another drug we should sort of throw in here, even though I'm usually about bioidentical stuff, there's a synthetic drug called Tibalone that is a synthetic steroid that has estrogen qualities, progesterone qualities and testosterone qualities.

Dr. Nick Fogelson: Is it a SERM?

Dr. Shanti Mohling: It's not a SERM, it's a, it's a synthetic steroid.

Dr. Nick Fogelson: And for people, a SERM is a selective estrogen receptor [00:16:00] modulator. The most common one being Tamoxifen, which is estrogen blocking in the breast tissue as it's used for estrogen positive breast cancers, but it's actually estrogen stimulating in the uterus. So SERMs are kind of these designer estrogens or designer progesterones.

Dr. Shanti Mohling: I'm pretty sure it is not. The drug class is progestogen, estrogen and androgen stimulating. Not classified as a SERM. But it is one of the drugs considered to reduce the risk of breast cancer, like the other selective estrogen receptor modulators. So it's an interesting medication for someone who is really afraid of using hormone replacement.

Okay, so what I told this person was that an exam to see if there's residual disease might be indicated and that further disease could be removed. And that, in my opinion, patients who have had either surgical menopause, so ovaries removed, [00:17:00] uterus removed, and endometriosis removed or not, 'cause sometimes people just remove those organs unfortunately for endo surgery, as you know, that, that these, these patients are candidates for

hormone replacement, but that it always should include progesterone. And I prefer progesterone because almost all of the synthetic progestins carry a relative risk somewhere between 1.2 and 1.6 increased risk of breast cancer.

Dr. Nick Fogelson: So are you using Prometrium, a hundred milligram?

Dr. Shanti Mohling: Either that or a compounded

Dr. Nick Fogelson: Yeah.

Dr. Shanti Mohling: Also if they are on estrogen there is a consideration to, to do even 200 milligrams depending on how much estrogen and estrogen I always do topically. So that we're not doing first pass metabolism through the liver and increasing coagulation pathways.

Dr. Nick Fogelson: Yeah, so just to kind of elucidate that point, when you take hormone replacement orally, through a pill, then that has to be absorbed through the gut, and then it comes through the liver. And some [00:18:00] of the impacts of estrogen, such as increased rate of heart attacks in the very short term after taking it, or strokes and heart attacks. That comes from increasing the clotting factors in the liver short term while you're taking it. So if you take estrogen through a patch, it doesn't go through the liver, and you don't get like a big burst of estrogen through the liver as you take it, and you do not see this increased risk of strokes, heart attacks, blood clots, and so forth.

Dr. Shanti Mohling: Exactly, so, birth control pills are a ethinyl estradiol, so it's, it's a not entirely bioidentical estrogen, and of note, so I'm not a huge fan of birth control, as maybe I've made well known. I don't know if you know that, but It creates four to five times the levels of estrogen in a body than are physiologically normal. So when you take a birth control pill, a combination of birth control, you end up with a higher level of estrogen. Say a 20-year-old takes it. Than you would have naturally, which now always doesn't make sense to me why we give them, for [00:19:00] pe patients with pelvic pain and endometriosis,

Dr. Nick Fogelson: They get cycle controls.

Dr. Shanti Mohling: They get cycle control. Exactly. So, where was I?

Dr. Nick Fogelson: Well, I think we were talking about hormone replacement in the postmenopausal endometriosis patient you were talking about tibalone. And that we want to

add progesterone for people to have it. And that's a great point for me. I actually haven't been routinely doing that, so I need to start doing it. And I had asked about Prometrium is where I kind of got you off track of what you were saying. And that, so Prometrium is a bioidentical progesterone, and, and when I say bioidentical, what that means is that, atom for atom, it's the same thing that your body is making. So like if you take estradiol, that's literally the same molecule that your body is making. If you take Prometrium, which is a brand name of bioidentical progesterone. It is human progesterone. So there are bioidentical products that are available by prescription at the pharmacy, like estradiol, like Prometrium or a patch of estradiol. And then there are also bioidentical [00:20:00] products that are created by compounding pharmacies and so forth. And that's kind of what bioidentical hormone replacement is, it is, and then there's the whole aspect of bioidentical hormone replacement that has to do with tailoring the amounts as well.

Dr. Shanti Mohling: Yes. So now Prometrium is really the brand name and so micronized progesterone is also now available. So it's much less expensive. It's also bioidentical, molecularly the same, and we haven't even gotten into the topic of testosterone, which I think is incredibly important.

Dr. Nick Fogelson: So are you routinely putting patients on testosterone or only if they complain of libido issues or, or some specific thing?

Dr. Shanti Mohling: Well, I don't routinely put anyone on anything is really the truth. When someone consults for hormones, I really have that conversation and we, we talk about what are all the symptoms that you are wanting to address by taking a hormone, and very often, as you well know, patients [00:21:00] around the age of menopause, so perimenopausal patients begin to have a drop in libido, drop in ability to orgasm you know, we're starting to lose bone by the age of 30, and muscle mass. So there are a lot of reasons why testosterone is valuable when a young reproductive age woman is going to have a higher level of testosterone than estrogen. And yet. We don't routinely prescribe that as part of the hormone replacement package, and yet I've come to find it incredibly important for vitality and wellbeing and muscle, and we're talking about a very low dose. So along the course of my career in taking care of non-binary patients or trans-masculine patients who were using testosterone in significantly higher doses than the baby you know, like homeopathic doses I was giving, I realized there is a lot of room to add testosterone safely. And I believe that topically is the safest way to go. But there is plenty of [00:22:00] room to add this to a hormone replacement regimen, and I think it's probably very important.

Dr. Nick Fogelson: So do we need to worry about sort of stimulating endometriosis in a person? Like where's the trade off? Let's say someone is truly menopausal, they're ovaries are not functioning or near, near not functioning. Very low levels of estradiol, maybe five or 10 or 15 micrograms per deciliter of estradiol of what they're naturally making, which is maybe 10% of their natural amount. Are we putting them at risk of recurrence or worsening endometriosis by putting them on HRT? And how much do you think that is? And then what are we getting for people that don't know much about HRT, like what are the benefits of HRT? Like why would we do it?

Dr. Shanti Mohling: I don't think we entirely have that data. I think we do have data that we can drive endometriosis to malignant transformation with estrogen alone in the menopausal phase. I don't know though that we have data that we're gonna drive a person who is [00:23:00] menopausal back into a state of endometriosis by adding estrogen.

However, anecdotally, I think I've seen this over and over. By the way, I think we should clarify that at least 10% of persons born female, have a risk of endo, have endometriosis, right? Two to 4% of menopausal women will have symptoms of endometriosis.

So, I had a patient not too long ago, interestingly, who had been operated on by David Redwine. She had had a hysterectomy. She kept her ovaries, she'd had excision of endometriosis and went through menopause and was put on estrogen and really felt an increase in her symptoms. And so she came to me and we did a laparoscopy and excision and there was some residual endometriosis. Not a lot, I will say credit to David Redwine. She was now able to begin hormone replacement without pain. So she'd gone through menopause, then started using estrogen, had a recurrence of endometriosis [00:24:00] related pelvic pain, and came to me. We did an excision and then subsequently she seems to be able to use hormone replacement, but I also put her on progesterone, which had not previously been offered to her because she'd had a hysterectomy.

Dr. Nick Fogelson: Well, that's a really important point. I mean, you were saying there's only a little bit of endometriosis left, but she was having symptoms and something I've often said, I may have even said on this podcast that you don't need much for it to be painful. You know, if you have something that hurts, the size of the thing causing the pain is not that relevant. What's relevant is where is it and how is it affecting nerves? Like if you get poked with a big knife or you poke with an ice pick, they both hurt. It doesn't matter if that one of them was that much bigger than the other. It's so true, you know.

Dr. Shanti Mohling: If you have a paper cut, you feel like you're, you can't wash dishes, right?

Dr. Nick Fogelson: One thing I say is that if you have a hot coal in your shoe, it's kind of irrelevant how big the coal is. Like it's a burning hot thing in your shoe. It really doesn't. It's like your experience is pretty bad. It doesn't really make any difference how big it is. Yeah. So if you have a small area of [00:25:00] endometriosis and it's still there and it's near a nerve, like maybe if it's on the bowel mesentery, maybe it's not gonna bother you very much. But if it's kind of on the pelvic sidewall, near the sacral nerve root, near, you know, on some sensitive peritoneum and then you stimulate it with estrogen, maybe you're gonna get more symptoms. And so I agree with you. Like if a patient is postmenopausal and she says, I take hormones and it makes me much worse, I am strongly suspicious that there is still a lot of, some, at least some endometriosis there.

Dr. Shanti Mohling: It's a barometer.

Dr. Nick Fogelson: Right? And if someone takes estrogen and it doesn't make them worse, then probably they don't have much endo there. So again, we kind of get back to the idea of a, people who are a little, little less thoughtful, I think, about endo, say, oh, you have endo. You can't take hormone replacement. What I would say is you can take hormone replacement and if it's causing you a lot of problems to take hormone replacement, we could probably address that by operating and, and cleaning it up in there.

One of the things that I think in general about whether it be this drug or any other kind of hormones or any kind of, excuse me, any kind of treatment [00:26:00] is that people get very fixated on the negative effects of things without thinking too much about the positive effects of things, they really get affected by the unknown negatives rather than the known positives. I mean, I think that's the whole deal with vaccine rejectionism is people are fascinated with the incredibly rare but real negative side effects of vaccines, which are like, we don't, it's an uncontrolled thing that we don't know can happen to us, while completely ignoring the absolutely profoundly known benefit of taking a vaccine. And yet they're fixated on this like tiny little risk. And I think it goes across all drugs. Like when I talk to patients about taking X medication, they're always asking me about side effects. They don't ask that much about what this will do for me. When you're looking at HRT, it does a lot for you. You know, patients that take HRT are gonna have a lower incidence of vaginal dryness. They're gonna have stronger bones, and their likelihood of dying from a hip fracture when they're 80 years old is gonna be significantly reduced. And these are the things that kill you. You know, you can be 65 and be pretty healthy and then be a frail 80-year-old. Or you can be a robust [00:27:00] 80 year old.

Dr. Shanti Mohling: More patients die following a hip fracture than I think breast and ovarian cancer combined. I, I, at some point I need to look that statistic up.

Dr. Nick Fogelson: At a certain age, when you look at the age. Yeah. That's true. Now, of course, a lot of people have gotten breast, ovarian cancer and died and they're off the books. But uh, Yeah. I mean that's a big deal. If you look at people who are over 80 and have a hip fracture, it's like some startling percentage of them are not alive a year later. Yes. Like it's sort of the cascade of, you know, when you get significantly old, eighties, nineties, something goes wrong and it often just becomes a cascade of a lot of things going wrong. So by taking hormones, in the fifties and keeping our bones strong, we may be preventing frailty and kind of a worse life 20, 30 years later. And so if someone has some pain from endometriosis, and if someone says, oh, you can't take hormones because you have endometriosis, they may be denying them a very significant impact on their current end, future health. And that's not fair.

Dr. Shanti Mohling: Well, here's something I think I find just so [00:28:00] ironic. The same doctors who are gonna say, you can't take hormone replacement because it's gonna stimulate your endometriosis, are the ones who are giving young people birth control pills, which are very high dose hormone replacement. Like way higher in fact, where is the disconnect?

Dr. Nick Fogelson: Well, at least it's taking it with progesterone, right? 'Cause it's progesterone in it, but, but yeah, that's a good point. I mean, what are you doing for your younger patients that want suppression? I mean, are you suppressing them with progesterone alone or are you suppressing them with a low dose birth control pill?

Dr. Shanti Mohling: Here again, it's, and you are this way as well, I know this about you, but you and I, we don't tell patients what they should do. We say, well, here are all the things and you can try this. You can try this. You can see what's gonna work for you and what's gonna make you feel best. I find in my practice most feel terrible on a birth control pill, a combination birth control. There are some that love it. They wanna stay on it. That's great. Love it. Beautiful. That works for you. You feel great on it. I think that's fine. Most of my patients [00:29:00] don't feel good on it. I've had great success with drospirenone or Slynd, which is a progestin only birth control pill that is possibly gonna suppress entirely the period, or at the very least, make it lighter. And I, I, I mean, it's been a game changer for some people.

Dr. Nick Fogelson: It's a, that's a very, it's a fourth generation, really modern progesterone that also doesn't cause fluid retention because it has a spironolactone like activity. So

Dr. Shanti Mohling: Nice.

Dr. Nick Fogelson: So the older progesterones are this first, second, third, fourth generation. There's no first generation progesterones on the market, but norethindrone is a second

generation. It's a strong anti endometriosis suppression, but also has a lot of fluid retention. So when people say I feel bloated on birth control, it's because they're retaining fluid and it has what we call a mineralocorticoid effect. That's ACTH in the kidney for the, for the nerds and basically, the older progestones are more mineralocorticoid, meaning they're gonna cause you, they're probably [00:30:00] gonna have a little stronger effect on endo, but it's also going to retain more fluid. And as we get forward into the third generation, you're getting less mineralocorticoid effect. And as you get to fourth generation, it's actually an anti mineralocorticoid where you're literally putting off water. You're actually urinating more when you're on that drug than when you're not.

Dr. Shanti Mohling: We'll give an example of a fourth generation. Well, it's drospirenone . Oh, drospirenone.

Dr. Nick Fogelson: So, drospirenone is one, and then there's one other one, but drospirenone is the big one that I think is a, that is approved in the US.

Dr. Shanti Mohling: In the US.

Dr. Nick Fogelson: So that was the first drospirenone birth control we had was Yasmin. And then that was a 30 microgram ethinyl estradiol with some drospirenone in it. And then Yas came out, which was a rebrand with less estrogen. And then they came out with like Ocella, which was, it's a branded generic. And then now, now there's a bunch of generics of drospirenone, and then Slynd is drospirenone alone without any estrogen.

Dr. Shanti Mohling: Yeah. So it's been, it's been a game changer for some people. And then I do think for some patients, the levonorgestrel [00:31:00] intrauterine device is wonderful because it's maybe 20% of the systemic levels of synthetic hormone, and so they get the benefit in the pelvis and the uterus in terms of bleeding.

Dr. Nick Fogelson: What's the progesterone that is available in Europe and Canada that's not available here that people like. Some people really like it for endometriosis and I'm not that familiar 'cause we can't get it here.

Dr. Shanti Mohling: Yeah, it's not Danazol, but...

Dr. Nick Fogelson: It's not Danazol.

Dr. Shanti Mohling: But one other comment I gonna make about norethindrone is that some of the metabolites are ethinyl estradiol, so you still get that estrogen stimulation

Dr. Nick Fogelson: So what about patients who are surgically menopausal versus patients that are naturally menopausal? Is that changing your thinking on replacement or not, or how you're gonna replace. In surgically menopausal, meaning that we took their ovaries out while they were otherwise would've been not premenopausal.

Dr. Shanti Mohling: So I think that, not just my opinion, but kind of mainstream thought processes that you would give them hormone [00:32:00] replacement until the natural age of menopause. Somehow feeling like that's gonna protect the bones, just the right amount of time or something like that. So, someone who goes through menopause naturally, still gonna have their ovaries, still gonna have their uterus, and then they may or may not have endometriosis. Say they have endometriosis that was never radically excised. They definitely, if they have hormonal, menopausal symptoms, can try combination hormonal therapy. It may or may not stimulate symptoms of endometriosis. Someone who is surgically menopausal and has had radical excision, I think personally is a candidate for a combination therapy, but always I'm gonna include that progesterone.

Dr. Nick Fogelson: I think that's a good point, and again, I'm probably gonna change my practice and start using more progesterone. I really hate the idea of doing, let's say someone has a really bad stage four endometriosis with bilateral endometriomas, and you do a hysterectomy, remove both ovaries, maybe do a colon resection, and we're talking [00:33:00] about real big surgeries here. You would hate to not put that patient on hormone replacement because of the history of endometriosis. 'cause she's 30 years old. I mean, she could have osteoporosis by the time she's 45 or 50 and she could be a real frail 65-year-old.

Dr. Shanti Mohling: And yet many do.

Dr. Nick Fogelson: I know, it's terrible

Dr. Shanti Mohling: Right? Let's be clear, many providers tell patients, you have endometriosis, you had a hysterectomy and removal of your ovaries. You cannot take hormones or you're gonna get symptoms again. Well, of course they are because they still have endometriosis that wasn't removed. But yes.

Dr. Nick Fogelson: Yeah, and I mean, I trained at uh, I did my medical school at OHSU where Leon Speroff was on staff. He was like the king of hormones. And then I did my residency at the

Medical University of South Carolina where Bill Creasman was the head of oncology and he was a big hormone guy. So like my whole training pathway was very pro pro HRT and the WHI study, which kind of interrupted everyone's enthusiasm for hormones, came out when I was a resident and I mean Creasman, like immediately tore it apart. He went [00:34:00] on a whole campaign tearing that study apart. Because I mean, to be fair, he was being paid by the hormone people. Some people say he is a shell for hormones 'cause he was a shell for hormones. But, at the same time, he was providing evidence-based opinions. I mean,

Dr. Shanti Mohling: So some of our patients listening to the podcast may not understand that Leon Speroff is like, you know, one of the, the very famous pioneers in terms of gynecology and reproductive endocrinology, I believe, and Creasman as well. So these are big dogs.

Dr. Nick Fogelson: These are big names. So, in all honesty, Creasman was a consultant for a number of hormone producing manufacturers. But, ultimately, I mean, he was what they call a key opinion leader, a KOL. And the problem with the WHI study is that they were trying to look at have this huge study with tens of thousands of women and they spent millions and millions of dollars. And they looked at breast cancer and I mean, it was a huge data set. So they looked at a lot of different stuff and they randomized people to getting hormones or not at the onset of menopause or what it was supposed to be at the onset of menopause.

Dr. Shanti Mohling: But it was 10 years [00:35:00] later.

Dr. Nick Fogelson: It turns out that when you looked at the people that they enrolled, they enrolled a lot of people who have been menopausal for eight or 10 years, and what they found is that the hormone group had more strokes and heart attacks and more breast cancer, and that suddenly became the headline that hormone replacement causes strokes, heart attacks, and breast cancer. Well, if you go and look at the nurses' health study, which existed, which was not randomized, but it, and which people want to go, well, the WHI is the randomized study. That's the gold standard, you know, after the nurses' health study, which has been around for 30 years and still collecting data to this day, although maybe the NIH has cut it by now. There was so much data that women on a hormone replacement had lower cardiovascular events and had stronger bones and all kinds of positive things. And then the WHI just cut the legs out from under that. But what the WHI did was it took people who had been menopausal for 10 years, they've probably had time to develop cardiovascular disease and we know that when women have drop off in estrogen, that their cardiovascular disease catches up to men within three or four years. Men have much, much more strokes and heart attacks in [00:36:00] early years. If you look at a graph, women are way, way below men. And then when women hit menopause and they don't go on hormone replacement, the line catches up with men with like two years.

And yet if they do go on hormone replacement, the line doesn't catch up. And they've done very nice monkey studies. In fact, here in um, plenty of people hate animal data, but I mean, sometimes you can find some really compelling stuff. There was at OHSU, a primate lab at OHSU, they did studies where they castrated monkeys and they fed them high fat diets and that some of them got hormone replacement and some of them didn't. And the ones that didn't get hormone replacement had heart disease. They developed atherosclerosis. And the ones that were on hormone replacement didn't. You know, they killed 'em later and they sectioned their hearts and they found out that they didn't get heart disease. Sad for the monkeys, but it was data. And people go, oh, that's just monkey data. I'm like,

Dr. Shanti Mohling: Right. It's panned out in human data as well.

Dr. Nick Fogelson: It's like we're primates. Why would we expect it to be any different?

Dr. Shanti Mohling: I wanna take us to just summarize some of the topics that we are covering here today, 'cause it's, it's a lot of information. It's hormone replacement in [00:37:00] general. It's endometriosis, it's pain. So, we've got the concept of endometriosis. Baseline. We've got the concept of hormone replacement and whether it will affect the endometriosis in terms of pain, but let's also add whether it will affect the endometriosis in terms of malignant transformation. And I think that the data shows a close to 1% risk of malignant transformation of endometriosis.

Dr. Nick Fogelson: With estrogen alone or with estrogen and progesterone.

Dr. Shanti Mohling: I think it turns out that it's with estrogen alone. And so, one of the studies that I looked at really was looking at ovarian cancer. But years ago I did a case report that was a malignant transformation of diverticulum on the colon. So if someone who'd had stage four endometriosis, and she had hysterectomy and removal of her ovaries and was told that was gonna cure her endometriosis. Well, later she ended up doing pellets. So this is another form [00:38:00] of somewhat alternative, but a lot more mainstream these days to do estrogen and testosterone pellets. They're little hormone pellets that last for, you know, release slowly over a. Two to three month period, put under the subq, usually on the hip. And she was doing significant dosing of estrogen and testosterone pellets and no progesterone 'cause she'd had hysterectomy. And she started to develop bowel pain and it turned out she had a diverticular endometrioid cancer that was next to endometriosis. So you could see on pathology, on histology. I went and looked at all the slides, this clear transformation where you had endometriosis right next to malignant transformation, into a basically a diverticular endometrioid cancer.

Dr. Nick Fogelson: Do you think this patient had had really thorough endometriosis excision previously?

Dr. Shanti Mohling: She had not

Dr. Nick Fogelson: So, so that's the question in my mind is that there's a lot of endometriosis in there that you're gonna stimulate with fairly high estrogen levels versus a patient who's had sort of [00:39:00] radical excision who has you know, microscopic to very little endometriosis is still there. But it's a, you know, the concern, it's someone who really hasn't had the endo removed, stimulating it, and potentially getting a malignant transformation.

Dr. Shanti Mohling: I think that even in the best of hands, we're leaving some cells behind. Yeah, I think so. So, you have endometriosis and then some kind of surgery and menopause, whether it's surgical or natural, and a choice to do hormone replacement or not. And then the Inherent risk or theoretic risk of malignant transformation or recurrent endometriosis symptoms. And so I think both sort of endpoints of badness, like one end point of badness is cancer. One endpoint of badness is like recurrent pain and endometriosis disease, right? Both of those are attenuated risk by adding progesterone to the hormone replacement regimen.

Dr. Nick Fogelson: And do you think that the amount of estrogen that you're producing with HRT is more than their ovaries were making? So if someone, if [00:40:00] someone has an endometriosis and they're 47 and their ovaries are working, there's a certain amount of risk of malignant transformation. Now, if we put them on HRT after menopause, I would think that the amount of estrogen in that is less than they were naturally getting when they were premenopausal.

Dr. Shanti Mohling: You're absolutely correct, and it's also way less than a birth control pill, which often people are on until they're 50.

Dr. Nick Fogelson: And so sometimes I, I hear people say, oh, well, don't do X because it causes, you know, X hormonal manipulation because it is gonna cause some bad outcome. And it's like, well they were already on that naturally when they were, when their body was making more hormones. So why are we so afraid to restore, you know, some tiny risk that kind of previously existed? And again, are we giving way too much credence to like this really rare negative side effect without really taking enough consideration to the known positives of something?

Dr. Shanti Mohling: Exactly. Yes. I think that's very true, but I think the risk of recurrent endometriosis symptoms by taking estrogen alone, if you have residual disease, I think that risk is really quite high. The risk of malignant transformation is less, but still...

Dr. Nick Fogelson: it's pretty low

Dr. Shanti Mohling: It's still [00:41:00] pretty low, but both are attenuated by adding progesterone and so most people tolerate natural progesterone really well. It's the metabolites that help you sleep, you take it at night. I think there are very few side effects.

Dr. Nick Fogelson: So I think the upshot of all this as you were, I'll just re-summarize, kind of what you summarized, is that in our practice, we're pretty comfortable giving hormone replacement to menopausal women who have a history of endometriosis. We would prefer that their endometriosis had been fully excised. And they're gonna get much lower risk of having recurrent symptoms because of their HRT if their endo has really been removed.

Dr. Shanti Mohling: Absolutely.

Dr. Nick Fogelson: And we're, you know, in general, pro-hormone replacement, the benefits of bone, the benefits of vaginal health and sexual health, of benefits of, of future dementia, variety of things. In general, hormone replacement. I mean, you're 63 now.

Dr. Shanti Mohling: Not quite. Don't push it.

Dr. Nick Fogelson: How old are you now?

Dr. Shanti Mohling: I'm 62.

Dr. Nick Fogelson: 62. But you're on hormone replacement, right?

Dr. Shanti Mohling: Of course.

Dr. Nick Fogelson: I'm 50. I'm not on hormone replacement, but I don't know. The universe of the men's clinic is calling me.

Dr. Shanti Mohling: Yeah, you [00:42:00] might be wanting some tea pretty soon. Okay, so I want to just go over it, because in fact this is actually radical. Almost all gynecologists say you've

had a hysterectomy. You don't get progestin, especially after 2000 when we put the kibosh on all progesterone. So I, I think it's actually fairly radical to say, yes, you're, you don't have a uterus and you had endo, and we want you on progesterone as well as estrogen. It's radical. So I'm gonna give you some backup. I wanna, I wanna give you a couple papers. So what, what I looked at namely one of, one of the significant papers I looked at was in a journal called *Cancers* and it's Impact of Hormone Replacement Therapy on Risk of Ovarian cancer in Postmenopausal Women with De novo Endometriosis or a history of Endometriosis. Now, I personally don't think they had de novo endometriosis. This just was not revealed until then personally. But, I could be wrong. Okay. But the upshot is this: the use of estrogen alone was found to be [00:43:00] a significant risk factor for ovarian cancer with an odds ratio of almost three. A risk ratio. HRT in combination did not increase the risk of ovarian cancer and postmenopausal women with a history of endometriosis. So I think that's very significant, that that's the beginning. I did read the whole article though, and their methods were really sound. It was a very large group who they looked at. I also looked at a review out of Stockholm on endometriosis and menopause management strategies based on clinical scenarios. They were also in agreement that adding progesterone was very wise. And then finally I looked at the final article I reviewed was a review article, Hormone Replacement Therapy in Menopausal Women with History of Endometriosis, and the upshot that they felt that continuous or cyclic combined preparations, [00:44:00] meaning estrogen plus progesterone, or using tibolone were the best choices. So, and that's uh, was a study out of Italy.

Dr. Nick Fogelson: Well, let's, let's wrap up this topic and get onto one other fun thing, which is that this week for the first time, we performed the first robotic surgery in an outpatient surgery center in Oregon, perhaps even the West Coast because we now are on staff at Oath Surgery Center in Portland. And they are one of the few surgery centers that actually have an intuitive XI robot. And so we are really excited to be able to be doing surgeries there because, first of all, we are limited in our operating room time at the hospital, but also it's more economical for our patients. So how was your experience operating at Oath?

Dr. Shanti Mohling: First of all, it was so great to, to like to overlap with you, and the experience of being in this very quiet private center, I think is really wonderful for our patients. It at least I think my patient [00:45:00] just felt incredibly cared for.

Dr. Nick Fogelson: My patient loved it. She was raving about it. In fact, I saw her today. Not only was her surgery a big success, but she just thought it was fabulous and she'd had many surgeries in the past that felt kind of impersonal from the hospital staff and that she just said that it just felt like 10 people that wanted to take great care of her. So I'm really happy about it. I look forward to doing more and, you know, for our international patients, as long as you don't

have something that's really complicated, like big diaphragm surgery or needing a bowel resection, we can do 90% of what we do in the surgery center. And for our international patients, the surgical fees are way less.

Dr. Shanti Mohling: Because of the hospital.

Dr. Nick Fogelson: Yeah. The hospital fees can be \$30, \$40, \$50,000, and yet the surgery center fees are like 15,000 or something. So it's a lot more economical. So for our patients in Canada, for our patients in the UK, for patients in Asia, like we have people coming from literally all over the world. We're gonna be able to offer just really, really great care at a much lower price, really state of the art. And so, I'm almost sorry, this is at the end of the podcast because it's burying the lead. [00:46:00] Like it's gonna be a great thing. Now, I did have one patient come from Russia, I was telling him the price, his wife needed surgery and he said, "You don't understand, I have a G five." He's telling me he has a Gulfstream five jet and he doesn't care about the money. So for So, but that's not most people. Not most. So if you, if you have G five, perhaps you don't care. But if you don't have G five, then perhaps you would like to save \$25,000 and we go to the surgery center. No doubt.

Dr. Shanti Mohling: No doubt. I would like to save 25,000. Yes, absolutely. It's a beautiful center, state of the art, a brand new XI robot. It was a pleasure, really just, I felt so well cared for by the staff and the team there.

Dr. Nick Fogelson: Yeah, and they appreciated us. And I even had nice little gifts in my locker when I got there.

Dr. Shanti Mohling: I know, candies. Just candies, sugar, just what I need..

Dr. Nick Fogelson: Just what we need Well, thanks for listening to the podcast. We're not gonna do any patient questions today 'cause we had a nice long discussion. We're gonna have a sponsored episode coming up. [00:47:00] We're gonna be talking about an endometrial biopsy test that is useful for endometriosis called a BCL-6 test. It's called...

Dr. Shanti Mohling: MyReceptiva

Dr. Nick Fogelson: MyReceptiva. So the CEO of MyReceptiva is gonna come on. It is a sponsored podcast, but we're gonna, we're certainly gonna hold him to some evidence-based discussion of his product and tell us what it may be good for.

Dr. Shanti Mohling: Absolutely. And, and I think one of the things that's super important, about MyReceptiva, and we're, this is a test that's been around for a while and it gives us over 90% accuracy of diagnosing whether someone has endometriosis. Right? Like why isn't everybody using it? But it is an endometrial biopsy, so it's a little tiny straw that goes into the uterus. You suck up some tissue and it gets tested for BCL-6, which is a marker of inflammation and a marker of endometriosis.

Dr. Nick Fogelson: Yeah, it's very useful for people with unexplained infertility 'cause these are the people that may not have symptoms, but we find out they have endo and that may be [00:48:00] making it more difficult for them to get pregnant. For people that have pain, they usually have a reason to get scoped anyway. And so. It's not as useful, but it has a real market for people who are maybe having failed IVF and so forth. And we'll talk about that in the upcoming podcast with the MyReceptiva

Dr. Shanti Mohling: Exactly. Yeah. So that will be a robust conversation. Oh, it's such a pleasure. We are so lucky. Nick and I, we like, have each other's brains too, which are very different and we get to like, meld them sometimes and cross paths in the OR and...

Dr. Nick Fogelson: Thanks very much. It's such a pleasure. If you wanna be a patient of Northwest Endometriosis Dr. Mohling or myself, reach out. Email newpatients@nwendometriosis.com or give us a call 503-715-1377. Either one of us would be happy to do free consultation for you. And you can say that you wanna see Dr. Mohling or you wanna see myself or that you just wanna see whoever's available first, and we're happy to accommodate whatever, whatever you like. Thanks very much.

Dr. Shanti Mohling: Thank you so much. See you next time.

