A Dive Into Back Pain with Dr. Neil Batta: Prevention, PRP and Personal Injury Care Transcript

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Podcast Introduction

Welcome to Dive into Health MD, the podcast where we explore how everyday habits shape your physical, cognitive and financial well-being. Through conversations with physicians, scientists and farmers, we explored how daily choices like food, movement, sleep and mindset shape the health and life we experience with special episodes on sourcing high quality food ingredients.

We do our best to stay up to date and we're always open to refining our thinking as new knowledge emerges. I'm your host, Dr. Akshita Mehta. Let's dive in.

Okay, so I think we told you a little bit about it already. But basically, this segment of the podcast, the physician segment, where we bring a bunch of physicians on is really just talk about your practice, kind of like your bread and butter stuff that you see every day.

And if there's anything that should know about whatever it is that you see, anything that people can do to mitigate some of the disease that we see. But even not just really shedding light into what physicians do and kind of what our day-to-day looks like.

So, cool, Nail, excited to have you on. Yeah.

Physician Practice Overview

We open each of these with a little bit of an icebreaker question. The ice breaker question is, health is built in choices that make every day. If someone followed you around for the day, what would surprise them most?

I would say the variety of people that I see on a daily basis. I think when I had my first job in Washington state, I worked at a pain, pain management doctor, or I work at pain clinic in like upper end suburb.

And so I felt like I saw the same generic type of Um, gone into the car accident space and meeting people who don't have insurance from a much lower socioeconomic background.

I can equate it to working at Penn Radner versus West Philadelphia, you know, or, just kind of the difference there. And, uh, so I think the variety of people and just the amount of languages and the cultures that I see, I would really surprise people.

That's awesome. Awesome. Cool. Well, yeah. Kind of rolling right into it. Can you tell us a little bit about who you are and what you do? physical medicine and rehab doctor, and I have a pain management fellowship.

But what that really means is I do a lot of injections, I deal with a lotta muscular skeletal disorders, And I work at a practice now that exclusively deals in personal injury.

So patients who have any kind of slip and fall injury, car accident, slip-and-fall injuries are actually covered under your car-accident claim, either they're using money from their car insurance, which has a set amount, or they're using money from a third party if they are not at fault, so somebody else is paying for their care.

Or if the don't have insurance and there's a certain amount of money, they can use a settlement. If they have money for a settlement they could use it towards treatment.

And so our practice was started by chiropractors and also an orthopedic surgeon in Utah and his wife's actually an

attorney as well. So they came up with this model and kind of this niche area.

And when I say niche, it was probably niche seven, eight years ago, but as health insurance and payments have gotten less in pain management per procedure.

Personal Injury Patients and Cost Constraints

People have been trying to figure out, well, how can we kind of maximize our dollar value? How can be help patients? And kind the workers comp cases and like L&I, MBA, all these kind, the payments are still pretty solid for what we do.

So I think a lot of people or physicians in my space are at least doing some of this type of work, but I just took the leap and do it full-time. Awesome.

Awesome. Okay. So let's like dissect that a little bit more. What kinds of complaints, I guess, are patients coming to you with? Yeah. I'll start at the top.

Let's say somebody has a car accident. They're going to be plugged in with an attorney, they're gonna be seeing a chiropractor, and let say their neck pain, their headaches, concussion symptoms aren't getting better.

Then they get a referral to our clinic, at which point we'll do an initial evaluation and we will talk about the full accident details. Were you restrained, unrestrained?

What was the mechanism of the accident? Uh, you know, can you describe, uh, did you hit your head, lose consciousness? Did you go to the emergency room?

Do we have records? What did get done? what imaging have you had done and essentially going through each area of the body, going to headache, concussion symptoms, cognitive symptoms.

Vision complaints, tinnitus in the ears, neck pain. Does the neck pain go down the arm, qualities of the pain symptoms, and then really any other complaints, knee, shoulder, ankle, really anything and everything.

And we try to piece together what we can do, keeping in mind that we have a limited financial pool for what can actually order. You know, MRIs cost a certain amount of money.

Injections cost a certain amount of money. And so we want to try to work within the finances, but also figure out what can we do to help patients. So our practice has MRI centers associated, we have x-rays, and we use these tools to also help the patients In addition, We have diagnostic concussion testing, going through balance testing wavy EEG testing for concussions, And we, have tools in that regard as well.

Wait, that kind of blows my mind, actually. I'm so used to, I mean, er, obviously, so I'd never think about cost at all. Do you do you know how much money you have to play with before you can order?

Like, is the insurance company telling you ahead of time? That's a great question. So yes and no, it's both. A lot of times when we get referrals from attorneys, we don't have all the information.

because things aren't settled yet. So we take payments on liens, so we're taking a promise of payment, but we may not see that money for a few years down the line once the case is settled.

If the goes to trial, right, we don't know. We may be called to the stand, our records may used in the court case, and that may help advocate a patient.

Now it's different because we are working kind of with the attorneys to advocate for our patient versus adversarial when sometimes attorneys will litigate a physician for not meeting standard of care or whatever the cases are.

So it's, um, sometimes we know, and if we no, then we have a select pool. Uh, but think of it like this, Divya. It's a big pie and everybody takes from the same pie.

So the chiropractors taking from that pie imaging, taking fun of the pie, the ER is taking, right? When you're seeing a car accident, you were asking immediately, what is your insurance number?

What is all that? Cause everybody's pulling from this same PI. And so I believe in Washington state and every state's different. I want to just speak for Washington State because that's where I work.

Is a $25,000 pip. So for your personal injury, now if the other person hits you and they're uninsured, then it's up to a hundred thousand. And then depending on what is settled and all of that, than that money can be way higher.

If there's an assault case or something like really crazy and there is a big settlement, We see all this, but it's a, it, we're trained at this practice to treat the patient medically.

Don't worry about, like, if you think an MRI is needed, get an MRI. But the difference is, is I don't have to talk to an insurance company to get the MRI.

I. Have to have, you had to do PT for six weeks. You have. To be able to move in this and X and, X, and. X. And X I just say MRI and MRI's done. End up over charging.

Yeah. Right. You just have to know, you have really be able to justify why you're ordering certain things. And so I think that comes on to still trying to meet standard of care, but I just think it's a different mentality.

It's almost like health insurance is like jail. Like you just feel like you are chained here, I feel more free. Is it going to change my management if I get this MRI?

What is it going to tell me about this case? Is it gonna make any difference, right? And so I'm allowed to kind of think in this space.

Insurance, Liens, and Treatment Decisions

So I almost think I used to, even in the health insurance, maybe order too many MRIs. Now I am realizing, okay, and I've kind have learned in last two years from the job, Okay, I maybe I don't need that MRI right now.

You know, maybe we can try this type of injection first, you know. Maybe these views and x-rays can help me, or maybe an x ray doesn't even help. It's just, I just need to use my clinical exam and things.

And so I think it's changed the way I. Think about all of that. So yeah, that's a great question. I guess it I probably order less than I did before. Interesting.

See you have more freedom almost now, but really needing to justify the utilization. who you actually were less. Yes, I think so. Because you really want to think about it and you want think can kind of help the patient.

Now there's a flip side. There's also the side of like a forensic side, right? You want identify something to maybe add value to a case. So let's say that MRI may identify that this situation is surgical.

Does it mean the patient has to have surgery? It's their decision. But if it's surgical, well, the case has higher value, and the cases higher-value, then the referring attorneys there understand that.

They're looking at it from that perspective. Then the chiropractors, okay, they're the ones who are pretty much the primary attendings on the key. So we want to also add value as well as care for the patients.

There's kind of that forensic side to it that is also low. Wow, this is so different than typical medicine, actually, in so many ways. Mm hmm. Yeah. I didn't know this about your practice.

It's cool. We have offices all over the state and now the surgery side. So we have two sides of the practice, our side, coast injury is the pain management side so we we have our non-surgical space and then there's the OSIC orthopedic surgery like consults and they have the surgery side but a lot of surgeons they work at their practices and do like a side hustle with the surgeries because the payment is so good like it's so on the dollar so these shoulder surgeons are like yeah they're doing all the operations replacements all that stuff under Medicare whatever and then they come here and they actually do cases here as well.

But they do it part-time. So we have surgeons, but they're not working full- time. We have hand surgery, shoulder surgery knee, hip, multiple spine surgeons who work with the group.

Does that mean you're the one that's doing all the referrals to the surgeons? They can't get into these surgeons without you referring them? Good question.

They can get referred directly to the OSIC team or they can be referred from us. Even though we're in the same building, we kind of operate as two separate entities.

So just depending on the finances makes sense. Sometimes if a patient is going to be seen by a surgeon, they want to make sure there's enough money in a pot for them to do surgery.

Spine surgery costs like a hundred grand. Though they're not going do a fusion if there is five grand in case. you know, then it's going to say, okay, you got to use your insurance.

So you gotta be linked up with your primary care provider. You know? So the sense for the surgeon actually evaluate. It's a little different. And sometimes if we're in a situation where look, it doesn't really matter what the finances are.

Like this case is surgical and it just needs to be evaluated. Then we have to send them to the community and we try to help with the transition of care.

Yeah, okay. Because I was going to say the ethics of that also gets a little bit murky. Like if you are like, oh, man, I'm seeing that you really need something, but you can't afford it with your insurance.

How do you even navigate that ethically? I guess it's like just thinking about it systematically, right? As our insurance changes in the US, so many people now are on Medicaid, people are losing coverage.

This is a nationwide issue. Not even more specific with us, the payments and the medicine are extraordinarily high. But yeah, and I think a lot of patients I see don't have primary care doctors.

They've never seen a doctor. they don' have access to the specialty care we provide unless they get into an accident, you know. So a lotta patients, I've seen like the Somalians, Ethiopians.

I saw a Marshallese Island patient. Just people from really all over the place. And they've ever seen doctor, ever. So I'm like, oh, wait. So if there's something going on, we have to try to say, okay, these are community resources.

These are things you can go to just to help. But it's very imperfect because really the healthcare system abroad is tough for people to get into primary care.

Yeah. It sounds like there is at least an option to decompress. patient really does need something, right? But it's not financially falling into whatever pie is allotted for them, then at least like referral to somewhere outside of the system is an option.

PRP Basics and Regenerative Medicine

Absolutely. And the nice thing is we're at the least able to identify it for the patient. Look, this is going on. This is surgical. Then it gets even more tricky.

Like what is really at fault? So I'll give you an example. We have a shoulder MRI, the shoulder, MRI shows, you know, partial tear of a rotator cuff, supraspinatus, right?

You see those all the time, your shoulder MRIs actually that. And let's say then the patient comes in, but they're a metal worker, they are a construction worker.

They've been lifting their shoulder their whole life. I mean, how do we really know that this partial tears from the accident or is it from just they had it before and now it's just symptomatic after the accidents?

So we also have this idea of, okay, we know this situation could be surgical, but how much is actually attributed to the accident. So it's up to us to also be able to justify, okay, like we can actually cover treatment under this or was it something that was pre-existing and aggravated before.

And so it a lot of that kind of thinking as well. Interesting. Dude, that's so fascinating. How is that different than your old practice? I feel like I can just do what I need to do to treat a patient.

Let's do PRP. Great. PRPs covered under MVA claim. No questions. Really helps patients with partial tear. It's better than steroid. We can use ultrasound.

The difference is I say, oh, I want to help you. Wait, I want to, this is going to be a slight off topic, but PRP. Do we believe in PRPs? You know, wasn't a believer before, But I'm a hundred percent.

I am a Believer now. And I say that in the most… I had almost zero belief in Prp before I came to this practice. Okay. Yeah. Sure. I would put it anywhere.

Here we go. I literally would PRP the entire body. Can you back up and just explain why you think this works? Well, one is I think the safety of PRPs is very good.

It's your own plasma, right? And you look at risk factors. Are they on anticoagulation? So we're all told things like that. And it's funny, even on patients on the antICOAGulation, There's some studies that kind of vaguely say that it actually still works.

I mean, it may just be less effective, but things like Coumadin, Xeralto, Aspirins, Ticragulic, Plavix, you want to make sure, because really ideally for PRP, You want make that the blood cells are good quality.

So if they have certain types of leukemias or things, that doesn't impact the platelets before you spin the cells or certain blood thinners. If you can establish that the PRP will be reasonable quality in most healthy patients of all ages, you'll likely have success.

And then what are you trying to target, right? So just to that point in and of itself, like, intra-human difference makes a difference. Like, can you guarantee that this PR is the same as my PR would be the Yeah, it's a great question.

You can't guarantee it. I think that's the thing about any of this spine injection, you just can guarantee. But what I can say is like, It'll be safe.

The risk is pretty reasonable. Surprisingly effective in older patients, I have like 70, 80 year olds who have cervical facet pain, and I do a diagnostic injection.

So what we do with the facette pain for the audience is we We'll do a diagnostic test injection where we'll put numbing agent across the joints under x-ray, anywhere in the spine, and we identify, do you have relief after the numming agent?

If we've been able to identify what joints via that procedure, then we can put PRP into the joint under X-Ray. And so I've had older patients who have a myriad of health problems, 90% relief from the procedure.

I can't explain it. Wait, isn't your PRPs supposed to be bad? Wait, can you explain what is PRP? Can you just define that first? And then let's talk about like spine pain and like what a facet joint is.

Okay, so I'll back this up. So spine Wait, first, wait, what is PRP? We've been talking about that, but for someone who doesn't know what that is. So PR is platelet-rich plasma.

And platlet- rich plasma involves doing a blood draw. We take blood from an IV draw and we spin the blood into centrifuge for nine minutes. Well, different types of spins.

But we do a nine-minute spin for different kinds of PR depending on the shotgun. So, but to simplify it, we spin the blood down in a centrifuge and we extract different layers.

One of the layers is the plasma layer without the red blood cells. So we want to separate out the Red Blood cells, then we extracted plasma from the centrifuged tube.

We pull it out, We extract the Plasma sterilely without The Red blood Cells that are all separated out. And then We have that sterility in it too. and then, Inject that plasma into a joint.

Now there's different types of regenerative medicine. PRP is what's called an indirect regenerative medicine, meaning it doesn't have growth factors in it.

It recruits your body's growth factor to come to the region where it has been injected versus things like bone marrow aspirate, where bone-marrow aspirates is another type of regenerate where your iliac crest, which is on the side of your hip, you take a trocar and you essentially grind it into the iliac crest into, the bone marrow, or you pull out the ball marrow.

You spin that down in a centrifuge. That concentrate actually has growth factors in it. So that's a direct therapy versus PRP is an indirect therapy. And my understanding in the US is you have to use your own cells during these therapies.

In Europe, You can use cells from other sources and inject them into yourself. advance into what the world, like where this is going. But PRP has a lot of uses and it's using like beauty, kind of like hair regrowth space.

It's used in the joint pain and we'll get more into that. I actually have a lots of other things about back pain I want to talk about. but it's the joint pain space.

It's used in sexual dysfunction, erectile dysfunction. Also in females as well. And I've heard this anecdotally from surgeons, but also there is evidence to say that it does help.

So there's a lot of resources. I have a dermatologist. question always because like whenever i look at the data like to be fair i have not done a deep dive by any means but i kind of thought the only data that showed that it was maybe valuable not even convincingly valuable was just me osteoarthritis and like every other joint you inject prp into was kind I think this also depends on like everything that you and i talk about is like the nuance right when it comes to like studies and the details.

And so like, I haven't had that many conversations about PRP, but like one of the ones that I have is with a plastic surgeon, right? And he was just, he's basically saying not all PRPs the same, it depends on how you spin it down.

It depends how long that process is. it Depends on so many factors that like you could get a PRT injection and they can have no effect, that you can do the injection under different circumstances and it could.

So it also depends what's the depth that is being injected, and there were like all of these different things that he talked about because he used PRP in his practice but he was like these things are you can't just blanket statement say like use PRT as a treatment without describing like how and all the details and I think he even talked like the gauge of whatever was going on but yeah so I there's so much more in it right like so maybe there is some

evidence about knee osteoarthritis and then maybe someone else did it in the shoulder but like, how did you actually do it.

And I think that's where like the devil's in the details a little bit. I completely agree. I completely agree with everything you said. We use Regenexx.

I have no, by the way, no financial disclosures here. So these are different brands. Regenex is one, Arthrex is another we've used, but completely to your point, why are there different chargers for PRP?

Why is there even a brand? Yeah, we're just taking someone's blood, right? What's the brand here? It's The kit that comes in.

Spine Pain, Facet Joints, and Epidural Injections

The kits or the centrifuge actual machine is from different companies. But as the years have gone by, they become like more equivalent. Like they kind of copy each other, you know, like Medtronic, Boston, that they all kind to merge and say, Oh yeah, our technology is better than yours, but really pretty equivalent and I think we found more that brands are catching up to each.

And I talk with some of the PRP reps and they're pretty confident to say look, You know, and there is like a we talked to like like, a distributor and then he talks to the company, you know.

So it's kind of like there's this whole like thing of PRP now and this world of people trying to sell you these products. And so it is how much spin what quality so I'll give you an example of.

to take your step further actually. So epidural injection. Back pain, we can do injections in the nerve roots for our audience, sometimes called an epidurals injection, where these nerve root are held.

The thought is we used to put steroid, that we put steroids into this space primarily, local anesthetic and steroids, numbing agent and steroids. The thought is, can we put PRP, Plato Allerged Plasma into this space?

And studies that have come out, they're doing like double and triple spins to improve the quality and all of that. But is that realistic in practice to spend, you know, 45 minutes spinning this down?

So to your point, like, is there, does that study, do we trust the results? Can we replicate it in clinical practice? I think the jury's still out on all the uses it can have and truly what what it can have.

But I am of the firm believer that in a decade, we're going to look back and say we did way too much steroid. I think we are going be doing PRP in the epidural space.

Divya, to your point, for the joint pain and the neck, the facet pain, there are articles to say that it's pretty equivalent to radiofrequency ablation.

It has pretty good benefit with the with facets. So the join pain in neck and back, I thing it is gaining popularity. But so if your point is that all PRP injections are like technique dependent, really, have you or are you able to, if you haven't been able, to look at your own patient data and be like, okay, of all of the PRT injections I've given, X percentage actually have a benefit with my specific technique?

That's a great question. I've never looked at my data, but I can just tell you that it's an abnormality. If somebody doesn't have really good benefit, it actually sticks out to me.

They didn't ever leave. What? Like that. It actually like shocks me when somebody I mean, I know that's really not the greatest answer, but it's like, whoa.

But drastically different than what the studies would suggest, which is so interesting. We also work in the subacute

pain space, maybe not in a chronic space because we're a car accident.

So there's an incident and then we are dealing with them like three to six months from that incident, not chronic pain where you're doing a procedure and the patient's been in pain for 10 years and you are like I don't know how much this may help.

I think that maybe there is something there. but I don't know that I have any data to support that other than saying if somebody doesn't get benefit, I'm pretty surprised.

Yeah. I mean, there's so many things to unpack here. That makes so much sense, right? That acute to subacute space I think is different, so I used to do that too when we would…

We started actually, we were doing sacroplasties and hypoplasties, and so we're noticing… I didn't pay as much attention to it, but if you have an acute sacral fracture, the L5 nerves as they like traverse over the anterior sacral margin.

Oftentimes we can see if we really look, even on CT, there is some like perioritis there. And so we were doing our plasticies and people were getting relieved, but a lot of people would still complain of radiculopathy symptoms.

So we would do a steroid injection just at the time of sacroplasty. If we saw anything, we wouldn't just like blanket do it for no reason. But if you saw like a little bit of increased T2 signal or some periodontitis there, then we would do an injection.

People felt so much better. But we will do these epidural surgery injections all the time, right? Or like, yeah, target chronic radiculopathy. Like if someone has a disc herniation or something in the spine and there's compression of a nerve and then that can cause symptoms, that And we would do a diagnostic injection with a local anesthetic to see if that pain got better, but then we'd also give them steroids in hopes that that would then go away for at least a couple of months.

And there's always variable results with that, right? part of that is the chronicity to it and how like acutely inflamed that nerve is. So I think that's definitely part.

Good. No, I was going to go back to like the facet thing actually. Yeah. To that point, this is a book here. This is The Interventional Spine Intervention Society.

Maybe it's backwards here, but this book, this international pain society, there is a position in Utah, he's not going to be the president of the society.

And he has been big about using PRP where we used to previously use steroid. He's been publishing a lot. So I think within the next five years, we're going have a big change in mindset about what PRB can be used for in the spine.

It's really, really interesting. What's the volume that you're injecting into the epidural space? So in the neck and for the audience, you think of the spine as a continuous space.

The neck is tighter, the mid back a little less tight, and then the low back has the most space, right? But everybody's pathology is different. So you want to look at an MRI before you do an epidurals injection because you wanna know, does your needle actually have room to get there?

You wanna look different nerve structure you want to look at their space. And then if there isn't, you wanna probably target the level below or above and at least get medication somewhere near the target area.

In the neck, I do one in one. I'll do about 40 milligrams of Kenalog or 10 milligrams or Dexamethasone and I mix it with normal saline just to avoid the high spinal where if you put lidocaine or a local anesthetic in the epidural space near, well, they'll have to ambu bag the patient.

Let's not do that. I'll have to call Divya. And then in the low back, I put about usually five cc's. So I mix it with a standard dose of Kenalog, 40 to 80 milligrams.

Then I will mix a little local, normal saline. Patients usually do well. There are different approaches. That's the interlaminar, which for the audience is when you go in center or a bit off to the side.

From the transforaminals, when the nerve roots exit from the sides, then you can also inject on the sides. How I trained, I do about one to two, maybe three overall ml's of fluid in the transferaminal injection.

I don't do neck transferaminals often or mid-back thoracic spine transferuminals. They fall in a little bit out of favor. In the mid back thorastic spine, those injections like lung puncture, it's just a high risk.

And so it It just isn't, you might as well just do the interlaminar and treat the pain. And then in the neck, transforaminal is you, the vertebral artery courses where the nerve roots exit out.

So a lot of the times you're just very close to that vertebra artery and so the injection just has higher risk. Where we see those injections is if a surgeon wants to figure out where to operate and they're like, look, we just want a selective nerve root block in neck.

We want you to address the nervous at this level and just see if it helps the patient so we know where, so that's where we may see that. How often do you do like diagnostic test procedure before actually, is it, this is like so unique to pain, I think.

Most things, like if you have a gallbladder infection, you know that their gall bladders infected you just take it out. But radiology, You can find all sorts of crazy things that don't correlate to that patient's actual pain.

So is that always a diagnostic before the procedure or? Great. That's such a great question. It's funny, next week I'm giving a talk at a law firm and it's about diagnostic testing and what we do.

And I guess it is probably to think about back pain and neck pain, and mid-back pain. Kind of two different varieties. The first variety is for the audience axial pain so it remains in the spine versus radicular pain following a nerve root from the spinal down the arm or leg or wherever.

And depending on the type of pain, we think about different procedures. If the pain follows a nerve root, think of the epidural injection. And if we can reliably identify the level on MRI and physical exam, and we try to correlate both, then we just go to doing a therapeutic injection for an epidurals injection, but really it's also a diagnostic injection Because if they respond, you know you're on the right track, but you are also hoping that the steroid will help.

So when you put numbing agent and steroids together, You have two phases of the response. The first phase is the local anesthetic phase. Are you getting relief almost immediately or for the next few hours?

And then the steroids will take a few days to start to work. You're going to kind of get two phase In axial pain, where the pain is more midline, we think about the joints, the facet joints.

And then you do the test injections. You do have to prove it because we know that MRI changes across the joint are actually insensitive to that. I think the way I equate that is the facade joint itself, that joints in the spine are very richly innervated.

But when patients get older, they get arthritis. It doesn't mean that that innervation is off or that arthritis in their joints or degeneration means pain.

But when you have an impact injury in a car accident, you're essentially aggravating that capsule. And so that's kind of how I equate to it. I don't always see MRI changes on the facet joints.

But then when I do the exam, I see tenderness. As I look, this is likely where I think it's coming from. And so for the

epidural, we use imaging and physical exam to kind of help.

But for for that facet joint, We use the imaging just to make sure we're safe to put a needle there, but then use our clinical acumen to actually determine what level.

So that's where the difference kind The other thing is there's more culprits for back pain than I thought. So in between the spinous, so there is the vertebrae, the transverse process, and then there was a spinus process.

The bone that comes off the back. And in-between each spinos process at each level in the spine, there are interspinous ligament. Sometimes on the STIR sequences and the MRI, you can see the inter-spine ligamen edema.

MRI Correlation and Surgical Referrals

That was never used to be called when I used send, but now the radiologists that we use are more like, radiologists who do injury reads so they'll read it and a little more like kind of granularity like for like a court case like they're kind PRP into the inner spinous ligament and people have really, really good benefit.

But that pain is more midline pain. It's not going to go to the flanks like the set pain, it's going stay in the middle. And so when I see young patients, as it stays in middle, there's no compression factor, obviously, any of that stuff.

We say, hmm, the interspinous may actually clinically be what it is. I've been right more than often. Let me do an inter-spine as diagnostic and voila, that's where the pain comes from.

It sounds like you inject PRP regardless of the type of pain then, like whether it's axial, facet or radicular. Yeah. Radicular is not as clear because we don't know the full safety yet.

But for axial pain and midline pain, yeah. I think radicular, some people are doing it, but they're doing on their own accord. Like not with the, the whole evidence.

For facette pain joint pain we do it. for ligament injury, we did it hands down. So the PRP injections that, so that can be perineural injections or it could be in the joint, like the facet joint within the capsule.

The pain may be coming from pressure within a capsule essentially. Yeah. Or is it so, is all just peri-neural or like, what are you actually injecting?

Is it just like a perinural injection? Like, when you inject that you're essentially inject it around the nerve? Yeah, exactly. Is that the same target?

Yeah, that's a great question. So I'm going to start with the facet joint. Here's the nuance thing, and maybe this is a really high level discussion, but we'll have it.

If they've done studies, let's say the sacral iliac joint, the sacred iliac joint is the Sacrum and the ilium joined together and a lot of people have sacroiliac pain as a common pain.

So they did studies where they looked at, so you put the needle into the joint or sacroiliac joint. You're doing contrast dye. you're getting the contrast flow in the joints.

But sometimes for whatever reason, it's just tough to get that beautiful orthogram. and it's more periarticular. Well, guess what? The results are the same for the injection, whether you're intraarticular or periaartricular.

It doesn't matter. The same thing with the facet joint. You can be in the joint and you can have a perfect arthrogram, or you could be periorartacular and the results will be the exact same.

And what I mean by that is what you are actually injecting is really probably around the facade joint? not actually in

the joint, because in a joint it's not where the pathology is.

The pathologist is in capsule that holds the joints. And so that's what I think we're mostly where benefits coming from a PRP, not within the join. Because actually the patients where I get the peri-articular flow respond equally if not even better.

So there are some physicians I know that purposely do not want arthrogram flow for those injections. They want the pariarticular flow because they know what we are actually aiming for.

For the nerve root, I'd imagine that it's just along the actual nerve roots. You know, and when you do the epidural, it is the same way. Like if you a trans-veraminal epidurals and you traverse the needle a little too, like into the nerves, they're going to feel it down the leg and then you're gonna make an adjustment.

And then, you gonna see the contrast. you are gonna the flow and your really just doing it around the nerf. But for the facet joint and for these joint pains, this peri-articular flow actually is really beneficial.

Yeah, that's what we found as well. At first, when like doing these injections, we kept trying to get in the joint. Yeah, let's get that perfect joint glow.

These cervical spine joints are so small, like the sets. And so to get your needle perfectly in that plane and to inject contrast is like really challenging, first of all.

But two, it can be like kind of painful because you're disrupting that capsule, right? And but so then we would just get like near the joint and inject around it and everyone felt great.

It was always the same. So yeah, that's it. What do you injecting when you do like a large joint injection? Is it just the like the articular space? Yeah, just depending on what you're trying to trigger.

So we can take the knee, for example. In the need, the approach I've done is actually suprapatellar rather than And for medial and for lateral, partly because I think it's probably better that it don't touch the articular surface with the needle.

Rather, if I do, like, so if i look at the patella and I'm holding in the long axis, and then I go just, just north of the Patello, And then i turn the ultrasound media, the lateral direction, then, I can actually kind of visualize them.

the quadriceps tendon and I look at the Oz underneath and i can just guide the needle lateral to medial just to Oz and just dip it right up top and then I'm into that super patella bursa that's the continuous space with the knee and so I am able to put PRP and essentially give it everywhere I can.

Just put it every where. Not like you're like, I put it in the shoulder. You know, the shoulders we put, you know into the joint will also do into subacromial space.

And sometimes we'll just do both because it's like well they have some partial tend to tell, well, they had a laboral issue. Let's just put into joint under x-ray, let's do a subracomial, lets put the PRP in all this space, but the more granular you are the better.

So I'll give another example. I didn't realize you go to PRV, this is cool. So I see patients now and I'm sure you've seen this here with subscapular.

So the rotator cuff has different muscles and one of them is a subscapularis, which essentially attaches the kind of the medial border here. When there's a sub scapulars tear, there is often an associated long head of biceps subluxation because they're kind work as like a pulley mechanism.

And so sometimes we actually do a sub-sepulars and biceps tendon sheath injection for patients who have that particular issue, and not necessarily into the shoulder joints, but actually into that tendon sheet, then we've had

good success.

Now, when that pain is very mechanical and a cell box is out, like sometimes you'll get an MRI and there's no issue with the bicep. Well, was the patient moving when you get the MRI?

Sometimes you do ultrasound and you can actually see the tendon come out as you move it. So that's an example of how ultrasound can also be diagnostic, and that's why we use ultrasound for PRP, because we can just visualize where we're putting all this.

And so the biceps tendon sheet is one where if we could be more granular, we help the patient. When you put in the tendon, you're actually micro-dissecting it.

It's painful for the patients. You're trying to make it microbleed and put the PRB into the entire area that you can. How much? In the shoulder, I'm going to probably put four cc's in each subacromial space, three, four, ccs, shoulder joint.

bicep tendon sheen maybe like two, three, I'll kind of feed it around there. And then maybe I will go into the subscapularis if they have any issues. Now, if the tendon is completely torn, PRP is not going to bring that back.

Well, with partial tear, 30% tears, maybe up to 50%, I would say. I have no track into why I picked 50%. But I somewhere in that number. But if somebody has really mechanical symptoms, or the sublox biceps tendon, pleat rotator cuff tears, without muscle atrophy, you want to have surgeons see that sooner.

Once you have a tendon tear and you see muscle Atrophy then the surgeons like the decision changes. Sometimes there's also like a timing thing with getting these to a surgeon sooner rather than later or in certain cases, if you know you can wait, then maybe you'll have to transfer here.

Yeah, interesting. So you can really put this anywhere. so intro to you are just like in a joint space, essentially, and then perineural around the joints.

And then in the case of the sets, I guess we're putting it around a space too, but you could put it in. Exactly. and actually putting in into joints is not even better.

It's like you just do it worse. it's just technically harder and like potentially more painful. But yeah. But it sounds like, so does it follow the same rules as for back pain, like where you shouldn't use it for radicular pain?

Like a shoulder injury with ulnar nerve distribution issues. into the hand or something. I don't know. The answer to all the nerve stuff, where it goes, because usually I'm putting in a space.

So I think the jury is still out. If we have this conversation in the few years, I might have a totally different answer. And I need to get back to one of these conferences with the Intervention Society, the International Physician.

Because I feel like they've made a lot of headway in these past few And the position, I think his name is Zachary McCormick and he's at Utah. He's big into this PRP stuff.

So he has been pushing because we're trying to get insurance to help with it too, right? So I that's kind of the push as well. And so I the more we have, then the better.

I actually started to like cover it for like the knee and things like that, Right? Yeah, yeah, the VA is big on it actually. Yeah, it helps. Do we know why it doesn't help?

Radicular back pain? It can. No, no, It. can help. But we haven't established a safety. We haven' established like what protocols like is it truly safe to put in that space versus our articular space?

You know, is there any kind of neurotoxicity? How was it? And the studies that have come out, they do like this 45

minute processing, triple spinning.

Like they have all these things that just aren't realistic for like, I think. practice where we need to see patients at a certain moment and we to get through our day.

And there's that aspect to it. There's realities of medicine, right? There there is a financial aspect too. We have to See patients in a timely manner.

So I think the jury is out, but I I there benefit. I they've shown that is benefit and I that's where We're gonna see a change in practice in the next 10 years.

In your day, what are you doing for ridiculous back pain? What's your strategy? But there's other things too. I mean, they're more than just injections.

When I think about back pain, I know it's ridiculous, but the biopsychosocial model, is just the way I thing about it. There's the biology of it, we've been talking about that.

Then there is the psychology and social aspect. How are people processing their injury from motor vehicle accident? Is there PTSD involved? Are there other aspects involved that's affecting their response?

What's the social situation? Do they have any financial support? Any family? What is going on here? Who is there to help them? I think all of that matters too, as much as the injection.

I had a surgeon who told me this when I walked in. You know a person is a surgical candidate when they walk in the door. Not when you look at the image.

When you actually just talk to the patient, you know if they are a surgery candidate or not. And I kind of show that as like, wow, that actually makes a lot of sense.

Like if you know that they don't have the coping skills to deal with all the potential issues of your treatment, it's probably not a good idea to initiate that treatment.

If you can avoid it. Now, if he can't avoid, they're in a massive accident. They have all these fine fractures. You have to do surgery, you deal. But, but I think there's like a conversation to be had in that space and making sure patients use many tools in the toolbox.

So. In addition to the injections, and again, no financial relation to this book, this is called the Back Pain Book by Mike Ige. This is an old book from the 90s.

And what it does is it looks at all the different exercises, things you can do around the home. Things like McKenzie-based exercises which are extension-base exercises.

But really McKency exercises for your back and neck can be tailored to patient, you know, because we want to go in the direction that does not reproduce your symptoms.

So sometimes extension makes the symptoms worse, in which case you need to more have like a flexion based program. So I think exercise is an important compliment to the radicular pain.

We do a steroid injection, patient doesn't have a good exercise regimen. They don't everything else maximized. they're probably going to have less benefit from the injection.

And so I It's a combination of what we try to teach and a lifestyle change as much it is like, oh, we have all these targeted procedures or procedure will help this aspect.

Well, what are we doing outside of this, you know, 15 minute experience? So which of these patients do you

actually end up referring to surgery for radicular back pain?

Are you always just injecting? Yeah, that's such a good question. Okay, so it depends on their physical exam. Are they myelopathic? Then we should not probably do an injection or at least have somebody look.

What does their MRI look like? Do they have severe stenosis and narrowing is severe? Is a severe central stenoses in the middle? is it on the sides? It is at multiple levels?

How old is the patient? You know, what's been going on? What is their health history? Otherwise, do they a million comorbidities where surgery is probably not going to operate.

Is there actual pathology for a surgeon to operating on? And I think I've learned from referring to surgeons and working with surgeons. It's like, you have to have a question.

If you don't have question, don' send it. And if you know, ask the PA. The surgical PA or your PA? And because I've become friends with all these people for years, and I mean that in the best way, it's like, if I have a hundred questions, I'll ask a surgeon one of them.

And I ask the PA, the surgical PA the majority, because now that's allowed me to learn what I should actually be asking a surgery and how I actually approach that conversation.

you know, because I'm very succinct. I m like, look, this is an issue, like what is the answer to this single clinical question?

Prevention, Lifestyle, and Mental Health

And that then I am able to like have a like a better outcome from that referral. You know if I send a patient in, they have moderate stenosis or whatnot, it's just not a good situation, then they don't usually go for it or what not.

But we really want the pathology to fit the MRI and we want it to be at a severity level where it may And so, that's kind of how I think about it. Or if somebody really has failed all conservative measures, I mean, sure, That's reasonable to send a surgeon.

Time, vacation, exercise, injection, all of that combination haven't helped. They've been dealing with this for a long time. Okay, it's a reasonable, but if there's no pathology, then the surgeon is probably still not gonna operate.

But at that point, at least you've maximized all them withouts. And if they're nuances in it, and I always reach to the surgical P. A. and if I have a question I'll ask the surgeons, But I've just learned kind when to pull that trigger.

And I think it's helped me navigate these cases. Okay. So I have a question for you. How often do you see MRI findings specifically for back pain correlate with patient symptoms.

Not that like probably like if I pick a percentage like 30% of the time, like really not that often. It's about the physical exam. And that guides how you look at the MRI, right?

Because you know, you're going to do an MRI read. You're gonna find all the disc herniations you gonna see. Yeah, it's here. There's a bulge here, there's all this and really the patient may have just been an athlete and the few they may a jujitsu fighter or whatever is going on and they have some previous thing, but that's at L2 and their radiculopathy is an L4 distribution down the leg and the have a right L four distribution.

Well the L1, L 2 probably isn't contributing as much and we know that the l4 herniation is and so I think we have to tie it with a physical exam and then that is how you target the treatment better.

So in some MRI reads from hospitals they actually give a whole percentage of, you know, a lot of the findings you see percentage wise are actually within just normal Yeah.

Yeah, so I mean, this is what I do every day, right? And I'll look at the spine MRIs and I will read them. And, I really, depending on the age, you can kind of guess what their spine is going to look like a lot of times.

So someone will say, okay, well, they're coming in for a radiculopathy here, back pain, and sometimes I don't get a lots of specificity to it. I'll talk about all these disc bulges and then what do I write for that impression?

I mean, I have no idea. Right. I don't know what's actually correlating. You know, see things that look incredibly severe and I can like visually see impingement of an exiting nerve somewhere.

Like, you know I, don t do this as much now, but I used to call and say, Hey, do they have symptoms here? And like most of the time, no. Oh, that's not actually what they went in for.

This part looks the tightest, this part, looks, the worst. And actually seeing the nerve being pinched here and like, there's no symptoms. Or someone will have severe stenosis at multiple levels and Totally fine, no symptoms.

So then you don't do anything, right? But it's really, I'll read this stuff and I can't picture what you're actually seeing because there's always a little bulge here, a bit of herniation there, some protrusion here.

Broad-based osteophyte complex somewhere, but I have no idea what that means for the patient. And it usually it doesn't. I don't think it correlates. And like I see patients with two levels of severe central stenosis, axial pain and this version is like, I'm not touching that.

Like there's no particular like yeah, not doing anything. You're fine. Have a 30, 90, like a 90 plus year old patient a few years ago, multiple levels.

She was skiing. He didn't care. It's just like, sure, like I'm not going to get surgery now. It kind of like where we're at this. Yeah, I completely agree.

I, it's totally about does the, the symptom kind. And when it does match, then it makes sense. Maybe it. Something that could become like more sinister in the future, but sometimes not.

Our spines degenerate and it is a continuous space. This is something I didn't know. Like I kind, of just have learned this as a practice more. So it's like a continuous complex, a degeneration complex where if you visualize a spine, there's the nerves that kind of flow in and out of it.

There's a facet joints, the neuroframing around it, now you can have a disc herniation that pushes on the nerve root that causes an issue. Right? Or you can have an irritation of the nerve root without a structural change.

Okay. Or the joints can degenerate and the injury of joints and instability can pinch nerve roots. So it's not just the disc. It's the whole complex that can pitch a nerve.

Is it the facets that are pinching it? Is that a hypertrophy of that facets? is it that the disk is pinch in the nervous? Where is that pinch the nerves?

And so it is like the full continuum that makes sense. You know, because sometimes there is a neuroforamenal stenosis, but there's, you know stenoses more centrally.

And so that's where the nerve pinches come. So that kind of nuance has also let me understand what is surgical and what isn't surgical. You know, what does the surgeon trying to actually remove?

You don't like, What are we trying do here? Like, is it this the sets? Is it just the laminotomy? is taking out a whole portion of the bone? Does it need to be fused?

What approach do you do? So they're looking at the MRI kind through probably the lens of you actually like kind that granularity of like what actually pinching here.

So I think the back is interesting in that way, but even that we see all these changes in patients, I feel fine. We're not doing anything. Is there anything that would be beneficial to like, is there any part of the lumbar spine MRI or like any spine, MRI where it would beneficial talk about more or in specific detail that you don't just see on baseline?

Like if somebody like were to have a finding and I want to talk about that more like, is there something that I can talk. Specifically that's actually helpful because so many times I'll read these fine MRIs.

I don't exactly what's happening with patients. So I just talked about like random disc bulges here and then the impression just ends up being like hey, there's multiple levels of neuro changes like.

look at the findings pretty much on like where you think there are symptoms and see if there's something correlated but i'm not going to put every single one of those obviously in the impression but is there something that i can do to make that report beneficial i think it's hard because we don't we I mean, like, if you don't have history, then I don, uh, that's a good question.

Yeah. I think the more information we give you, than you're going to be able to look at exactly what we're trying to identify. But I think if you don't, then it's kind of, I mean, you'll have to say clinically correlate.

I know you want to look at the alignment, right? I thing that's important. Like, is there any lesthesis? And I that that is important to call. And that can be really helpful because then we can get a flexion extension x-ray.

We can measure if there's any movement from the vertebral bodies. Does that make a difference in their care? A lot of patients have. For the audience, these PARS defects where if look a specific kind portion of the bone that could hold the different segments of spine together.

Some patients just have a defect with wear and tear or in life if they were like a gymnast or did a lot of extension-based exercises or athletics when they're younger.

And then in the future, they get a back injury and they actually have like lesthesis and then either it's unstable so we get the flexion extension or not.

Then that actually depends. If there's more than a few millimeters of movement, that's a surgical referral. Because then the surgeon will be like, all right, this is reasonable.

There's movement here. What can we do to fix it? Because an injection is not going to help with the mechanical instability. Now, if there's no instability, you can do a PARS injection.

You can, kind of treat it from that sample. So I think lesthesis is really important to call whether or not you know, because I that can help kind figure it out.

But other than that, I thinks it's up to us giving you the history and that way you tell us what we want to. Yeah. I mean, the alignment is super baseline.

Everyone talks about that. Yeah, I think the only thing with the motion, you're not always going to see an MRI. Like you could have neutral alignment on an MRI and still have some instability emotion because all MRIs are done in the supine position, right?

So the patient's like laying down and so they could stand up and we'll see that sometimes, and then the alignment can change. And so if they still, they would have a normal alignment, on the spine MRI, that's always something that we talk about.

but then you know it could be dynamic because we're only imaging one plane you have like i've seen providers order upright mris of the spine and like different views does that have any value i don't know i have never read one of those but i think that would be the value right because when people walk around the configuration of your bones,

I mean, you're like, the spine is mobile, right?

So as you are walking and youre bending, your flexing, like the spaces are going to change. So you could have a pretty open neural foramen, but then if you were to move in a certain position, there could be impingement there.

I'm not going see that dynamic, those dynamics on MR, Right? I only look at how many upright MRI machines exist in the world. Yeah. And I don't even know if I thought that that was like a real thing or if knew that, that Yeah, like I have a patient like, yeah, my provider like wants an upright cervical MRI.

I think that's why, because we're upright, right? So if that may be where symptoms are, I don't know, but like when you lay down, you could be opening a space.

It just may not look as severe, instability for sure. But I just think you just need to flex that plain fill. I don't think you need a standing MRI. Exactly.

When you come into the ER, you're not going to get a flexion accessor. You're going get two viewers. He's like, no way. There's so many limitations for what you can diagnose.

This is actually maybe the biggest question I get in the ER, right? Like all these patients come in with back pain and they're like, why are you not ordering me an MRI?

Right. That's actually the question. Like who actually needs the MRI if only 30% correlate to findings anyway? I mean, the only times that I feel like you could actually see something, it's like If you see a massive disc herniation in an otherwise normal spine and it always ends up being a young person, like the 25 year old, and they have a car accident, right?

Something like that. Something cute happened. Could be weight lifting. It could be some sport injury. And then they had acute onset of pretty severe, ridiculous pain.

They get fecal sac stenosis. Those are the ones that I feel like you can almost say this is an acute thing or most likely an acute thing. Other than that, it's just all going to look like a degenerative spine.

And there may even be an acute small disc herniation somewhere, but in someone who has background degeneration, like there's, how are you gonna tell? It's difficult to identify.

And then the lumbar spine and cervical spine are easier. Then you get the thoracic spine, it's a whole different ball game. You don't really know. It is interesting because in the Thoracics spine I had a patient with a giant T11, T12 disc herniation, but the symptoms are way higher.

So he had seen two surgeons and they're like, we're not touching that disc because it is not really, you don t think it s contributing. He ended up having facet pain And I did like an upper thoracic right side of a set radio frequency ablation where I can burn the nerve.

So I didn't do PRP. It would be that. instance where I did a diagnostic injection across the mid-back joints, identified it, and then I actually placed a needle and I burned the nerves off to those joints called an ablation.

So it works a little different than the PRP, where PRB kind of uses your body's self-healing properties versus the radiofrequency ablation can kind de-innervate.

But yeah, he ended up doing really great. Yeah. I will say that the other instance, I'm not advocating to get MRs for everybody, so we get like pan-spine CTs on a lot of trauma patients, right?

get a CAT scan of the horrible spine. There are some vertebral body fractures that are really challenging to diagnose on CT, even in a patient that has normal bone mineralization.

And for whatever reason, sometimes we'll get follow-up MR and we will find fractured that we didn't always find. But I will say, I still don't think that that's indicated because all those fracturs have no height, you're not gonna do anything.

there's no high loss, there was no like facet joint malalignment, nothing, There's nothing like that. So there is still nothing to do. I think the only thing that we're missing is, oh, well, this is the etiology of their pain that were not fully revealing.

But I mean, that is something that I do think that potentially missing. is probably some vertigo body fractures that can be really subtle sometimes. We can definitely see them most times, I would say, but occasionally I've seen a couple of follow-up MRs where really tough to see on CT.

And that's where, going back to my space of motor vehicle oxygen, where sometimes the value is not just in what we can treat but identifying it for a case.

Yeah. There may be some value in the MRI, not just for the patient, but saying, well, what is it? Then sometimes we can get the MRI for that research.

Like, are we going to do anything? Maybe not. But at least then we've identified that there there's maybe, you know, something here that we didn't know before.

So that's a great, it's great. It's such a nuanced thing. I know the spine is weird. Yeah. All of those are like no height loss, right? That's why he didn t stay on CD.

There's no retropulsion, like nothing like that. They could go undiagnosed. Yeah. No, it's, yeah. It's actually really cool. Like our three specialties are so different, but back pain is probably the most common unifying diagnosis for all three of us.

Yeah, I got an email from like the CMS or something like a few weeks ago that, or months ago, that basically they use my old job where I was like under still building Medicare.

I don't bill any Medicare now. But essentially, they're identifying low back pain and heart failure as two diagnoses, and then they are going to actually rate you compared to whatever scale that they have.

And then the payments that you're going get from Medicare are based on how you perform based like that standard. So I think there's going be like different changes in how we think about back what we do like as the insurance payouts kind of change and as these rules kind have changed.

So it's, yeah, it is the most common diagnoses, but I just feel like things are going to change in the next few years like with how their insurance looks like, you know, how people are, where the money is going come from for these treatments and then things like that.

And so I think that calls into question, what is value of an MRI? And where do we want to, when do really want it? And so I'm always, now that I am not in the health space, I really think about like, do I need this?

What can it add for me? Don't want give Akshita money by ordering the MRI. I have way too many spine MRIs. Please don't order them. We get emails from radiologists all the time.

But we use a radiology center called Expert Radiology and the guy's in Puerto Rico. This is Dr. Avery. He's really good. And he has about maybe 25 to 30 radiologist he was telling me that do injury reads.

So they do about, he said 10% of the injuries for the entire United States come through that practice. But they read them a little different, actually.

Essentially, it's like each level is like a paragraph. And they have a nice summary. But then at the end, they kind of

summarize, well, based on the incident at this date, we think that these may be more the acute findings.

They have disclaimers. So it is a different style of the reporting. I'm not saying one is better than the other, but reading it to the types of clients that we see.

That's amazing. I mean, that's where I feel like radiology should be, right? It's like reading it for specific scenarios. Like if you have a practice that is, you know, accidents, then reading in that manner, but like, as opposed to just general radiologist reads for any lumbar spine MR that comes across.

But that sort of like it's beneficial when there is some connection there, and there's some conversation. And so often there no conversation between radiologists reading versus person who ordered the study.

How cool would it be if you were in the ER or Neal's clinic and you could just pull the radiologist in and be like, hey, I'm thinking of ordering an MRI.

Can you just do a quick exam and say what you want to order? This is what I wanted to do actually. So when I was an intern, the radiologist was in the ER, right?

And so we would go to him all the time. He was like a floor below, but whatever, he was there. And then we'd go them all time and be like, Hey, this is what's going on.

What do I do? How do we order this? We would call him and we say, hey, that doesn't match at all. That's what I thought I was going to do. I wanted to like sit in ER and read cases and like sometimes even go see the person.

Like today, I read an FCT this morning And it said like palpable mask. And then so I like had my assistant call them and say, Hey, like, where where is this?

What are you feeling? Like, I need more words than this. and and then she sent me a message and she said, Okay, so it's a right anterior neck mass like underneath the mandible over here.

No, and I read the scan saw nothing. So I called the ER. I was like I don't see anything. This looks like a normal scan. And she was like, oh wow, thank you for calling.

And then could actually explain it to me and was just like so grateful that I could look at it through her lens. It's just not something that's feasible.

We can't do this for every single case. I think she honestly was palpating with some endoblial gland, which happens so often. But it was a little bit of peace of mind.

Like I hate reading a scan where it says palpable mass as normal. like there's clear it just always clearly something there is some disconnect something is missing if someone palpates something i hate reading that it's normal that's so uncomfortable um but at least i could talk to her and she could really tell me like what she was pal pating and i asked her if she thought it was some particular line she said that yeah that probably could be it so like i think we're pretty happy and likable there on both ends um, but that also got a pretty pretty unnerving like you pal paint something and then scan says it is normal like What is that, right?

And oftentimes it's like physiologic lymph nodes or, you know, something to do with glands. Like there are ways to explain it in a normal sense. It doesn't always mean that there's something off, but like, it just, a lot more reassuring when we can chat and connect about that.

You guys bring up a great point, and David, your point. We don't practice medicine, I think, in way where we're communicating. I had, when I was an intern, But you know, got you guys nice.

So after we all went to medical school together, disclaimer, and after that we, we had to do internship. And so I went back to Buffalo and in Buffalo, some of the older doctors, like I was at a hospital, were just people who I knew

in the Indian community who were doctors.

They would tell me that back in that day, all the doctors will come have lunch. they would all be rounding and they were all, the specialists, they all have a lunch in this same room and would just talk.

about cases. They didn't have the EMR, they just all written records. So they would just talk, and they'd be like, well, what do you guys think of this?

There'd three other specialists doing it, but what are we going to do? And so it would be a little board, it'd like okay, I'm going do this, you're going this and you can do that.

And they were just talking about each and it was a lot more dynamic. It was more fun. People would actually converse. But now it's like I call the primary care, like you are the first specialist who's called me in three years.

I was like, oh, that is crazy to even think that that's the first thing you would tell me, you know? Yeah, I get that too, and that wild. I'll call an ER doc and they're like I haven't talked to a radiologist in months.

And I'm like you order this stuff every day. This is such a bizarre way to practice medicine. Like I sit in my house and I read scans and have no conversation with whoever is seeing these patients and it's so bizarre.

become a button. I will say like sometimes it is not warranted like someone can order a scan and I'm like yes clearly like this is what is there's a fracture here yes they have a hip fracture like I don't need to talk to everybody but yeah it's uh it' interesting.

Yeah I agree I agreed but when I have these conversations again I go back I still call the surgical PA. Like I really want to have conversation I'll call them but but usually it stops.

But I think conversations are good. I didn't realize we'd go so much into PRP, but it's cool. It really helps patients and just trying to get healthy for the better.

I still have a PRP question though. How quickly does it work? Great question. So we do a four-week follow-up afterwards. I would say response time is two to four weeks on average.

Okay, so it's not like a local anesthetic where you inject it and you're like, yes, this worked. Thornness is normal, right? Because sometimes you're going to do the microdust section and then they're gonna ramp up because it's recruiting the inflammatory meteors.

People are like, I feel worse after this. And then after a few weeks, their pain starts to really go down. So we don't follow up before a month because we're not going know the time course of the response.

Sometimes even a little longer. I did a PRP on a patient who had moderate arthritis of CMC joint, the carpal metacarpal, and I under ultrasound, you can kind of see right into the joint.

It's a really nice injection under the ultrasound. And then I put PRP and basically after like six weeks, she had wrist pain and then it kind of came back like a year, year and a half later.

Day in the Life and Closing

And she was like, yeah, I kind just forgot about it. I was, like oh wow. But the response was longer than I expected, but truly she'd had multiple steroid injections.

Nothing else had ever really helped her. Okay. Yeah. So then those two questions, just like the steroidal injections, so like how long does it typically last and how can you redo it?

And how many times can we redo? You can redo it as probably as many times as you want. We don't do it more

than three times just working with our financial claims and just kind of because it's expensive.

I think repeating it, some practices, it is different. It varies. This is where the practice varies, so some will do like a booster PRP in a few months.

And I'm of the mindset of just repeating when we need it. Uh, I always tell patients a good result from an injection is three to six months of at least 50% relief.

If I can get more than that, great. Awesome. If it's less great, and I try to under promise and over deliver. So if I. Get more then that then, that's really good.

But then it comes back to what are the patients doing outside of the injection that helps them? Are they doing exercises? Do they are, do they have bad habits?

So they had bad posture? Or are they continuing down the bad road and the kind of habits and, if they, they're not. then I think these injections work a lot.

But they're just not a magic wand. And so it's a very tricky question. How long it lasts? Almost up to the patient as much as the injection, I thing, to answer that question, but three to six months at 50% is great.

Yes, you can repeat PRP. Steroid, if you don't want to do more than, for steroid injections in a calendar year, not more that two every two weeks, in the two-week span, and then looking at the clinical history of diabetes, osteoporosis, all these other things, then history.

So I'd say, for a year, not more than three and six months. For steroid, PRP, use it when you need it. Some practices for PRPs that just do regenerative, there's practices that do just regenerate medicine.

They do a bone marrow aspirate, and then three months later, they'll do PRB booster injection. Oh, interesting. And actually they've had really good results for like up to like a year of relief and things like that.

So it's just, it just depends on kind of what results you see and anecdotal evidence. Awesome. Okay. So you mentioned like exercises and posture, like anything prevention wise that you think people should think about or consider to maybe not have to get a PRP injection or a steroid injection, or any kind of injection for vaccine or an MRI.

We don't want any of those. I agree and I actually have there's an article I pulled up just kind of a habit I can send you guys with this American Journal of Lifestyle Medicine and it talks about again that the biopsychosocial model I think that just it just touches on all that things like like what pain catastrophizing right like, what what are the behavior changes we can look at to help like how are we analyzing the situation What are our behaviors that are leading to the pain and how can we then modify that?

And I think that's really important. I thing things like Tai Chi, yoga, I also think are really kind of important in preventing back pain, improving flexibility.

And aerobic exercise can help. Now it's tricky because weight loss doesn't directly as much help with backpain and I looked into this more because I know I mentioned it to you guys before.

And I think what it is is like, people do all this weight loss stuff, and then they don't maintain it. You know, they know they do good thing, maybe they'll get off the medication, you know.

They'll have surgery, but then go back to kind of the bad habits. So I weight does help kind indirectly, because you can move better, exercise better.

But it's difficult to like study weight-loss in a vacuum because like those patients just have so many other confounding And so it's not like a direct correlation with weight loss.

Unless you see epidural lipomatosis on the MRI, then weight-loss can actually directly help with And actually amyloidosis- I just thought I was gonna ask.

Yes, please go ahead. No, epidural lipomatosis in relation to weight loss, that's what I'm gonna say, yeah. Yeah, my understanding it can absolutely help.

And this conversation came up, I at a conference and another pain physician who I know in the community was giving a lecture, he was asked and he actually verified that epidurall lipometosis.

If you see it and the patient loses weight, it could directly help with pain. So just to explain that. I thought that the weight of your body is causing, or at least exacerbating like the herniated disc or the axial load.

So you're saying there is no correlation to like how much weight you are physically carrying correlating to pain? I think it's just so there's so many but like what do people do every day?

Like how do they lift things? You know, how did they move things around the house? It's like it just, I mean I just think there some correlation but it is just hard to prove it and study it.

But I think you're right. No, I, think it absolutely like, for me, it just makes sense. But when you study it and try to look at it, the data just isn't clear because patients like like skinny, like thin patients are just, you know, they're, there are heavy lifters and they are, and there just putting axial load on their spine from what they do each day.

How do they, people sit in a car? Do they commute an hour? And do, what is their posture in the car and yeah, that may not be big, but, are they also putting actual load their on spine?

and then maybe they lost 30 pounds the last year, But they were sitting posture so bad in their car that, It's still a bad axial load. So I think that's where, but I agree.

I mean, there's some thought there. Even amyloidosis can cause stenosis in the spine. It was like kind of getting into those weeds, so there are a lot of things that can caused it.

But for weight, I there is a correlation, it's just hard to… Yeah. Yeah, just wanted to explain the lipomatosis thing. The epidural lipomatosis is what that is.

When we have stenoses in a spine or other things impinge on the nerve roots and the spine that could potentially lead to symptoms. That could come from a whole bunch of different things.

It could from the disc that is like protruding towards the thecal sac or towards spinal canal. it could coming from osteophytes which are like these bony like overgrowths that happen when we have degeneration it can come form the facet joints and then like hypertrophy of those facets joints.

thicken and that's a ligament is along like the posterior aspect of the spine. And then that could get thicker and then cause compression. There's also something called epidural lipomatosis where it's like increased fat deposition within the epidurals compartment, oftentimes dorsally, so like towards the back.

And then that causes external compression on the theosac or the area surrounding the spinal cord. So there's like, there are all these different factors.

It's not always like a disc herniating that could cause symptoms. There could be a whole bunch of things. And so what that means is we could treat it in many different ways, depending on what's causing it.

That is exactly, exactly correct. Yeah, I think so. So to the point of what you can do to prevent, i think it's all these things, you know, and and I Think things like like diet are really important, You know Well, inflammatory foods, I think just eating better and iIthink you guys know this better than me I, think that really can help with pain and the hope is that by by having good good mental state by Having good based on exercise habits by, having Good diet

you, can actually prevent a lot of you Know the bad posture the, bad weight and The things that that can negatively impact the back And what it does is it prevents, like if you have an injury, you also have a better chance to recover.

And I'm truly a believer in the mental aspect. We have a psychologist who works in our clinic who deals with patients who have PTSD or anxiety with driving accidents.

And, I think patients, who actually respond well, they're actually also respond. Well, to our injections, and I, think there has to be some correlation there.

So, there was a study where, at least 70 to 75% patients have pain over 6 months, 12 months have depression and anxiety component, um, that we can diagnose to, to the issues.

And so I think it's cognitive behavioral therapy. I Think all of these are just so crucial in preventing, uh, back pain from coming and then looking at these books, you know, like really understanding the root cause can be, can, be really helpful.

We don't want to do injections. Don't wanna do PRP. No, I would prefer not to. You know? I'd rather see other things help. And medications help, but they don't prevent.

Medications are reactive to pain. They're not going to help pain from performing, and so that's what we want to try to avoid, too. And I think even things like gabapentin, we now know that has maybe long-term effects we didn't know about before.

Cognitive decline later in life in patients who have been taking it long, especially when they're ages 25 to 45. So we wanna try avoid as much of that as we can.

Do everything else. Yeah, awesome. I feel like that's a good segue into the walk me through your day segment. Before we do that. Oh, yeah, I gotta go.

So do you want to keep going and I'll just drop off or you wanna wrap up fully wrap? Can I can do a quick? Is it just quick day in the life and we can call it?

Yeah. So, and thank you guys. I know this discussion went everywhere. So uh, okay. My day in the life. Okay. Uh, so I work Monday through Thursday and I worked a seven 30 and my first patient five 30 PM, my last patient.

And so on a Monday to Thursday workday, I get up a five 15 to five, 30 I'll get ready, leave the house by six AM. It takes me an hour to get to work. Have a hands-free driving, which is great.

Then I got to. Work and. I just start writing notes immediately. I keep dictating and writing. And then I see patients in 30 minutes to 60 minute windows, depending on procedures and follow-ups or new patients or if they're foreign language.

Then I work in a small room with my colleagues who are all awesome PAs, MDs. They are amazing colleagues and we get along really well. Uh, I seen my patients.

Pretty good now about charting. So I'm able to finish all of my notes as I leave end of the day. Sometimes I spend about 15, 20 minutes afterwards and I drive home.

I spend time with Baby, about an hour, 7 to 8.30, we put Baby to bed, and then Prina and I just kind of hang out. And we live with our in-laws, so they're able to help at night because Prinna and work full-time.

On the weekends, I join the local YMCA, So I do a few kind workout regimens. I've been on a whole weight-loss thing these last year, down about 45 pounds this last So I've been doing just like YMCA, mixing different weights, working on the pull-ups, by the way, I'm working at that.

So, getting there, not there yet, but I am getting. And that's where I focus on the lifestyle kind of aspect of just incorporating consistent exercise, having a set schedule.

Um, and I think it's been really beneficial. And on my weekends, I try to just enjoy. Spend time with as much as kind with my family, do some exercises and, uh, kind we have a really good routine.

My wife, Prina, she is an attorney for the state and she's able to work a hybrid schedule and so we actually figured out and on Wednesdays I actually have my.

Family drop me off to. Work and then sometimes Prerna and. I do a date night in, in Renton. So we kind. Kind of mix it up. We have some date nights. we have, we've spent plenty of time with baby and I try to just incorporate being on the schedule and not bringing work home.

And that's the biggest thing with my lifestyle. No work at home, work is a work and home is really at-home and having a, being a father now has really, really changed.

I do not want to, I don't bring work. Amazing. That's awesome. that awesome I'm so glad I know you and Prina were doing date night. So very cool, very, cool.

Very cool I am glad all of you is doing well. This was so fun. Thank you, Neil. Thanks so much for doing that. I didn't realize where the conversation would go, but I'm glad about PRP and thank you guys again.

Really appreciate it. For personalized guidance, always consult your physician or a qualified healthcare professional, wishing you physical, cognitive, and financial wealth.

See you in the next episode.