ADAPT PTP Functional Medicine Q&A with Tracey O'Shea

Wednesday, August 4, 2021

1. This person's [total iron-binding capacity] (TIBC) is 415; their [unsaturated iron-binding capacity] (UIBC) is 382. So [it's] a little bit on the higher end, and then iron total was 33. And iron saturation was low at 8 percent. (1:39)
2. Why would someone have high vitamin D if they're not taking any supplements? One of our patients has a level of 95.3 through Labcorp, and [parathyroid hormone] (PTH) is pending. (9:33)
3. What is the difference between thyroid peroxidase [(TPO)] and thyroglobulin antibody [(TGA)]? Because it seems like most people are positive for TPO versus TGA. But you had a patient test positive for both this week. (16:59)

Tracey O'Shea: Hi, everybody. Let's give everyone some time to come in and get going here. Sorry, we're running a little bit late today; I apologize. There [were] a [few] issues with the link. But I think we've got it all figured out. So, like I said, I'll let some people fill in. I do have a couple of pre-submitted questions, so we'll go over all of those. And then, of course, please feel free to put your questions in the Q&A section of the webinar or of the Zoom meeting, and then I can answer them as they come in. I think what I'll do is I'll start with the pre-submitted questions. And I have two screens up, so I apologize if I'm looking back and forth. That's why I'm doing that. I'm not ignoring you, I promise.

Someone submitted some questions about iron levels, and they had some iron results that were a little off. So [they're] asking for my take or our take on them. "This person's TIBC is 415; their UIBC is 382. So [it's] a little bit on the higher end, and then iron total was 33. And iron saturation was low at 8 percent."

I don't know if this person had a ferritin [test]. It doesn't sound like it, or at least it's not added here. This happens quite often. I think iron metabolism is finicky. I'm not sure how many of you have come across this where you've got some weird iron markers where your total iron is normal, and then your ferritin and your iron saturation are just off.

I would say, [and] I think Chris would agree, that I tend to focus a little bit more on iron sat and ferritin from a perspective of giving me an indication of iron status. Now, I think it's possible that some of these could be off depending on what's going on from the perspective of iron storage. So if your ferritin is really low, for instance, but all your other markers are high, I've done a lot of

research on that and try to figure out why there's this mismatch. But I think there is some consideration with the way people store their iron and utilize their iron. Or if they had a really low iron level and they had to pull from their iron reserves, then that can be why you can sometimes have, oh good, thank you, Adam. Ferritin was 15. So ferritin and iron saturation are both really low.

So in this case, to be honest, I'd probably recheck. I know patients don't like to go in for repeat panels. But I would probably lean toward repeating this panel, just to make sure. If this is the first time this has ever come up, if there's never been a history of iron deficiency, if this person doesn't have any history [or] reason why they would have low iron, meaning, this is a female and she doesn't already have really heavy cycles. So there might be some reason why they might be iron deficient. I would repeat this panel [to] make sure that those results are accurate before I did anything, to be honest. If they still came back with this inconsistency where the rest of the panels seem to be normal, but the iron saturation and ferritin are low, I would go with the iron saturation and ferritin, and I would interpret this as iron deficiency or suboptimal iron.

And in this case, this person hasn't bottomed out. The levels are pretty low for iron sat and ferritin. But I would probably, depending on the circumstances, do desiccated spleen to try to see if I can get the levels up without having to do an iron supplement because we know there are side effects and things that can come along with iron supplementation that are less than ideal, like constipation and some of the other issues. Although Proferrin, as we've talked about, I think the heme-based sources of those iron supplements are probably a better choice, and I see [fewer] side effects. But if I got the same results, I would probably do some counseling on food and nutrition [and] take a look at their diet. Maybe have them do a Cronometer tracking for food tracking and see where their iron intake is. Give them some counseling on maybe they're okay with eating some liver and spleen and organ meats, and see if you can get those levels up a little bit naturally. If not, I would do the Ancestral Supplements spleen capsules, six a day, and then I would retest in four weeks and see if you can get those up a little bit. And if you can't, then you could maybe consider doing Proferrin.

I'm going to look up the Blood Builder on MegaFood. I'm not as familiar with that product. So let me just look at it really quick[ly] and see what's in it. So let's see if I can find an ingredient here. Oh, I think this is all plant-based, right? I don't have any familiarity with this particular product. So it's hard for me to tell you exactly if this is the way to go. But I think there is, yeah, I think this is all plant-based forms of iron and the nutrients. I tend to go with the most bang for my buck. So I haven't personally seen a lot of improvements in iron levels with plant-based iron supplements. I think absorption, in my experience clinically, is lacking.

I think it's worth a try. I mean, this has folate and [vitamin] B12 and beetroot, and it does have 26 milligrams of bisglycinate for the fermented iron. But I would just say, in my experience, I probably would not do this. I probably would do the spleen and then do Proferrin if needed, unless the person is a vegetarian or doesn't want to do spleen or desiccated organ complex or anything along those lines. So I think there's no reason not to try the MegaFood Blood Builder;

I'm just not sure that I have seen similar products like this have as big of an impact. But it could be worth a try. I don't see any reason not to do it, and I think as long as you're just saying, like, "Hey, we're going to try these interventions," or "We're going to check every four weeks or so to make sure that you're getting some movement in those numbers," then I think it's worth it. As long as you're monitoring them and checking. And I think the other question would be how does the person feel? Are they having any other symptoms that could be correlated with iron deficiency anemia? What does this person's CBC look like? Are you seeing anemia? Or are you just seeing low iron markers? So, how complex is this? How far-reaching is it? And that is probably how I would start making decisions about intervening. If the CBC is fine, this person doesn't really have a lot of fatigue, [and] they don't really have a lot of other symptoms or complaints that might be correlated with iron deficiency, then maybe I [would] just do a little bit of spleen, or maybe try the MegaFood plus spleen. Retest in four weeks, [and] see if you can get those numbers supported.

But again, I would probably start with a retest first, unless you really have a sense based [on] their food diary or based [on] whatever they have filled out for your intake. If you get a real sense that they're probably deficient in iron-based [on] food, or they have some absorption issues within the gut, then maybe you don't retest and you just go based [on] your instinct that intake is probably low or absorption is impeded, and I think it's probably low risk to try the spleen, or the MegaFood Blood Builder. I would definitely retest before, though, using an iron supplement like Proferrin. So I hope that helps.

I think a lot of you have the same question. "Why would someone have high vitamin D if they're not taking any supplements? One of our patients has a level of 95.3 through Labcorp, and PTH is pending."

This is an interesting question, and I don't know [if] I have a great answer for you. This has, I think, happened to me a couple [of] other times. One time, we found that they were taking vitamin D somewhere and it was hidden, and they didn't realize that it was part of, like, I think it was part of their bone support supplements. This person was a little bit older and was also taking cod liver oil. Anyway, we found that it was hidden. So that's one thing. You probably have already done that, but I definitely think double-checking to make sure, sorry, I was just reading one of the comments. Oh gosh; sorry, I lost my train of thought here. Let me start over.

So first make sure that there isn't any hidden vitamin D supplementation anywhere. I think that that's first and foremost. They'll be like, "Oh, no, no, no." It's like, "Okay, well double-check all your labels, give me the list of things that you're taking, [and] let's just make sure that you're not taking vitamin D." You [have] the parathyroid hormone pending; that would probably be the next place I would start. Normally, in my experience, it's low vitamin D that you might be concerned about in hyperparathyroidism and looking at the parathyroid connection between vitamin D. So I'm just trying to think of other places I have come in contact with this. I don't know that it has come up that often for me. Let me just look and see if I can find any of my other notes on high vitamin D. And you can always send me a message directly, Adam, and see if I can find you

some more information if I'm not able to find it right now. But let me just see if I can find anything in my notes.

But again, like I said, I think it's only happened once or twice in my experience where I wasn't able to identify why the vitamin D was high without a reason. And I think the other question is, like, is it a problem, right? Is it a concern? The goal of vitamin D ranges, we generally aren't aiming for a vitamin D that high, and there might be, as Chris has talked about, some concern for supplementing vitamin D and trying to get to these super physiological doses of vitamin D. I'm not as versed on genetics. It's not something I've had a lot of opportunity and time to dive into. I don't know if there's some possibility of the [vitamin D receptor] (VDR) variants that can cause, that's usually the opposite, as you know. But I don't know if there's something there that could be connected to the VDR attack or the VDR BSM that might be contributing to the high vitamin D.

So just let me think really quick[ly] and make sure I'm not missing anything. I wish I had a better answer for you. But I haven't come across it that often. And so I think the two questions we have to ask ourselves [are], is it a problem. Is it suggestive of something else and a different imbalance, and that's why the vitamin D is on the high end without supplementing? I think I would also have some questions about has it always been that high? Has that person ever tested vitamin D before? Have they always been on the high side of normal? What's their calcitriol look like? And looking at their calcium levels, what's going on with the intestinal calcium absorption? So I would probably look [in] that direction. So calcitriol, what [are] the calcium levels, get that PTH value. I think this is in the curriculum under the vitamin D. I'm trying to remember where you are at in the week, but there is a section on high vitamin D levels. The hallmark sign of high vitamin D is hypercalcemia because of the increased intestinal hyperabsorption and reabsorption and hyperphosphatemia.

I think if you work your way through the differential, looking at the calcium, looking at the phosphate, looking at parathyroid hormone, and really making sure that all of that is within range and is fine, then I wonder if it's a problem. Because really, we're looking at the concern with the calcium, bone, vitamin D, all those connections between the two. And if the rest of that is fine, I don't know the age of this person, but if they're young, but if they're this post-menopausal age, check that calcium; double-check [if] there [are] any osteoporotic changes. I wish I had a better answer for you. But I think that is enough, I hope, to give you some direction and where to go.

Agnes, I know you wrote about visual learners being able to project the lab values up without violating HIPAA. Yes, I think that would be fine to do, but people aren't submitting the lab to me. They just wrote it out in a little paragraph. So it's just in a spreadsheet, unfortunately. It's not like a Labcorp result. So it might be a little tough to share that. But I like the idea; [I] like where your mind is at.

Okay, let me see what the other questions are here. I'll just find my page. Okay, this other question is, "What is the difference between thyroid peroxidase (TPO) and thyroglobulin antibody (TGA)? Because it seems like most people are positive for TPO versus TGA. But you had a patient test positive for both this week."

I agree with you also 98 percent of the time. When I'm looking at thyroid antibodies, it's the TPO antibody that tends to be elevated. But every once in a while, I get someone with the TGA. And my understanding is exactly what they are. These are two different types of antibodies that are present in this immune attack of the thyroid gland. It's my understanding that the pathology or the role of the TGA is still a little unclear based [on] the last time I looked into this. I know that there is some evidence about iodine deficiencies and the thyroglobulin antibody, because it can interfere. If iodine is sufficient, then the thyroglobulin antibody measurement could be off.

So, I guess what I'm getting at is, if it's the first time the TGA has ever been elevated for that person, or if this is the first time you've tested at all, I generally always retest a thyroid antibody level, both TPO and TGA. Because, as you know, antibodies fluctuate. And every once in a while, I think in this situation where we're testing regularly, a lot more than most people get tested, it's a little bit more likely that we might catch some of those elevations and fluctuations. So these are just two different types of antibodies that can be detected. TPO is, as you mentioned, much more common. And the thyroglobulin is still, I mean, I'm still going after that as if it's the same kind of autoimmune disease. But you'll probably notice that the thyroglobulin antibodies are generally not as high. So I usually will see those at the highest, like around nine or 10. You may see them a little bit higher, I guess, if you go.

But I think that's the most that I have to give to that comment, because based [on] what I understand, the etiology or the pathology and the role of the TGA is still questionable when compared to the evidence and research that's been done on TPO. But I think they're both relevant in this situation. And I would say [in] my clinical experience, most of the time, if the TGA is elevated, they're both elevated. I think I've had one person maybe that only [had] a TGA that was elevated, and it was just barely elevated. So I'm just keeping an eye on it and working toward still eliminating all triggers of immune dysregulation.

I think they're both relevant and they should both still be monitored and checked. But if it's the first time that's ever come up, [and] it's news to them, I would double-check those antibody levels again, just as a secondary confirmation. OTJ was 110. Oh, that's high. Yeah, that's significant. Is that the first time it's ever been elevated for this person? Or did they already? Oh, first time. Yeah, that's pretty significant. Were they also hypothyroid? How was their thyroid function? Was thyroid, yeah, okay. Yeah. So I don't think my approach would change here, to be honest, regardless of which antibody is there; people may have a different point of view on that. That's just my take and how I've moved forward with addressing autoimmune [disease]. Like, autoimmune is autoimmune. The underlying process is the same [regardless of] which organ or which system it's impacting, of course, is where it gets its name. And then managing symptoms can be important to know what system it's impacting. But from a perspective of treating

autoimmunity and treating thyroid, I don't think it changes much for me whether the TGA or the TPO are elevated. Because I'm still going to try to restore thyroid function if the person's hypothyroid. That's still first and foremost, I think, important because most people are pretty symptomatic from a low functioning thyroid, and we want to help them feel better. And trying to gain that momentum is really crucial in order to be successful in treatment.

And that's my opinion. Some people may feel differently, but I usually try to normalize thyroid function as I'm working through trying to do some other things. But I'm still approaching that from a perspective of autoimmunity to try to assess and figure out what might be driving that autoimmune process. Are we dealing with gut infections or are we dealing with nutrient deficiencies? Have we tracked iodine and selenium levels? Are we possibly getting over to heavy metal testing because of the connection between Hashimoto's [disease] and mercury toxicity? So yeah, I hope that's helpful. And the difference between those? Again, I think there's a lot more information about TPO, and we know a lot more about that than the TGA. But I'm not sure it necessarily changes the course of action, in my opinion.

Okay, so those were all the pre-submitted questions. Thank you, Adam, for submitting questions. It's so nice to be able to answer some of those for you. Feel free to use the Q&A if you have more questions. I know Chris has quite a few on his list of things to answer. So when he comes around for, I think it's in a couple of weeks, but he will go through those and answer those questions. When you submit questions, you can designate and differentiate who you'd like to answer them. We try to respect that. So even though there's a bunch in here that I'd love to answer, I will let Chris answer them because I think people want to hear from him, as well. All right, I'll give everyone just a couple more minutes. Anything else that came up in your questions that you have on the curriculum or what's going on with the program in general? [I'll] give everyone a little bit of time, and if not, we'll just end a little early. But I definitely want to make sure that everyone gets their questions asked.

And this is also an opportunity if you have, like Adam had specific questions about patients. If you have a case study, I'm happy to go over those and review them during the Q&A, and happy to work through those that way, as well. Well, I don't have any other questions that are popping up in the Q&A. I really appreciate everyone showing up, and we'll have this recorded, and we'll add it to the forum, if anyone has any additional questions. And then, Chris will be here in a couple [of] weeks to roll through some of the other questions that were submitted. And then I'll be here again in September. Feel free to ask those questions under "submit a question to faculty" and just designate how you'd like to answer them. You can also email them to me if you have specific questions that you need to answer faster than the Q&A. Thank you so much again for showing up, and I will see you again next month. Bye.