ADAPT PTP Q&A with Chris Kresser

Tuesday, March 30, 2021

1. What would be the top five problems we'll see in our clinics? What will we be not trained to handle? (3:10)
2. The training talked about [*Helicobacter pylori*] (*H. pylori*), when it's acquired early in life, may not necessarily be a negative. When do you decide to treat *H. pylori* versus leaving it alone? Does it need to be well out of range high to suggest treating? (9:24)
3. I just got a third stool test that showed staph and strep in a patient. She wears a mouth guard at night. Could bad hygiene be the cause of staph and strep presence? (20:44)

Chris Kresser: Hey, everybody. Welcome to the Q&A for the end of March. Spring is upon us. Snow is melting here in Utah, temperatures are increasing, [and] the sun is shining. There were no questions sent in ahead of time, which I will take as a good sign that we're doing such a good job teaching you this material that you don't have any questions about it. And so that means we'll be totally dependent on the folks who are on the live call to ask questions. And the best way to do that is just to type them in the Q&A box. So you can do that. I'm sure you're all excruciatingly familiar with Zoom at this point and know how it works. So please use the Q&A box rather than the chat box to ask a question. That way, I can track them and mark them off when they're answered.

So it looks like there are a few of you on the live call. Go ahead and type any questions in that you have, and we'll get started. While I'm waiting for you to do that, I want to mention this will be coming out in an email today or tomorrow, I think. But as you may know, I did a talk at the [IHH-]UCSF Symposium on [Nutrition and] Functional Medicine, I guess it was two weekends ago. It was on Saturday, March 20, on the role of vitamin D and cofactors and supportive nutrients in the COVID-19 pandemic. And typically, those talks are not released to the general public. But I asked Dr. [Akil] Palanisamy if he would be willing to do that because I think this information is just too important to stay behind a paywall. I mean, there were about 300 attendees at the conference, but this is vital information, and it's unfortunately not being widely disseminated by the mainstream media or public health infrastructure. So he agreed to release the talk. That will be available in the next couple of days for free. And it's really important information for practitioners to be aware of because I think vitamin D can play a substantial role in mitigating the consequences of the pandemic.

Okay so, Rick, "What would be the top five problems we'll see in our clinics? What will we be not trained to handle?"

That's a good question. Level two or three of this course looks at environmental toxins, heavy metals, biotoxins, mold, and other things you might encounter in a water-damaged building. And then persistent organic pollutants and pesticides, pesticide residue, things like perchlorate, jet fuel, glyphosate, bisphenol A, and a bunch of other persistent toxins that we encounter in the environment. I think those are a growing problem. Chronic infections, particularly tick-borne diseases, and latent intracellular infections are also a growing problem. And hormones, as well. But I think hormones are more of a trailing issue, meaning that hormone imbalances tend to be caused by all the things we're covering in this first level of the course. And also, things like toxins and chronic infections.

Of course, there are no primary causes of hormone dysfunctions that involve structural issues or issues with the hormone-producing glands, but those are much less common and not, in a Functional Medicine context, don't tend to be the causes of hormone imbalance. So there was definitely a lot of thought that went into why I included the things that I included in this level one course and what might be next. Those are a few things that come to mind. I think long COVID is certainly an emerging issue. Obviously, we didn't cover that in this course because the material was made years before COVID[-19] and updated since then. But it looks like long COVID is characterized by autoimmunity, in many cases, issues with the autonomic nervous system. There [are] some case reports in the literature now that in some people, at least, it manifests quite a lot like [postural orthostatic tachycardia syndrome]. And, of course, we're still learning a lot about it.

But I think, given that we already have millions of cases of COVID[-19] worldwide, it's pretty likely that COVID[-19] will become endemic and won't be eradicated and will continue to cycle through the population, at least at some level. I think we'll be seeing a growing number of cases of COVID[-19]. I think autoimmunity, it's already a pretty significant problem, but it's, given the number of threats that we face in our modern, industrialized society that trigger immune dysfunction, I think, unfortunately, that the incidents, prevalence, and number of autoimmune diseases [are] going to continue to rise in the coming years. And so a growing, increasing our ability to address autoimmune conditions, learning as much as we can about them using the Functional Medicine lens and other tools and perspectives to help address autoimmunity I think is going to be a very important clinical skill in the coming years.

I've come to believe that [the] relationship with technology is a really critical factor. You may be surprised to hear me say this in the context of a Functional Medicine Q&A, but if you think about the things that affect our daily experience of life, that's one of and, consequently, our health and well-being, that's one of the things that stands out to me the most. In many cases, for people who have not examined their relationship with technology, from the moment they wake up and even actually through the night because many people keep their phones in their bedroom at night, they're being constantly interrupted by notifications and demands on their attention. And those demands on attention actually provoke a sympathetic nervous system response in many cases, so they trigger a chronic fight-or-flight reaction. And you all know what the consequences of that are from this course, and probably previous study.

We're not designed to live constantly with sympathetic arousal and chronic fight-or-flight reactions. And yet, that's exactly what these technologies are doing for many people. So I've come to believe that that's an elephant in the room in a lot of cases where you can have people who are doing all the right things when it comes to diet and even exercise and other things, but they are just constantly plugged into the matrix, for lack of a better general term, and that actually continues to trigger their sympathetic nervous system and causes all kinds of health problems. So I think a growing focus on lifestyle and behavior and, within that, our relationship with technology is going to be an important focus for any clinician who's working with patients that live in the modern world.

Okay, next question from Rick. "The training talked about *H. pylori*, when it's acquired early in life, may not necessarily be a negative. When do you decide to treat *H. pylori* versus leaving it alone? Does it need to be well out of range high to suggest treating?"

Another good question. So there are a few different ways to think about this. First of all, even though in theory, what I said is true like that, if *H. pylori* is acquired early in life, it actually could have a beneficial effect early on in terms of reducing the incidence of, strangely enough, what we were just talking about, autoimmune disease. Also, allergies and any kind of hyperactive immune response during childhood and adolescence and even early adulthood.

The problem is that we don't, as clinicians, have a way of knowing when *H. pylori* was acquired when we detect it on a test. So [if] you test a 30-year-old or a 35-year-old and they have *H. pylori*, you have no idea whether they got it last week or when they were an infant. So it's a difficult thing from that perspective. However, I do and have treated kids as young as two years old for many, many, many years and have tested kids, at age two, three, four, etc. And when I detect *H. pylori* in kids of that age, I'm much, much less likely to treat. I usually don't treat. If I do, it's generally because there are other things going on, as well. And so, I'm mostly targeting those other things. And if *H. pylori* is addressed to some extent with the other treatment, I'm not worried about eradicating it necessarily. But I'm not targeting that in most cases, either.

Using the pediatric antimicrobial protocol with really gentle medicinals can be a way of addressing [gastrointestinal] (GI) issues in kids of that age. And it may have some activity against *H. pylori*, but I'm not targeting that population. In adults, the calculus usually looks like this. There are different ways of testing for *H. pylori*, and in an ideal world, we would have a quantitative [polymerase chain reaction] test. So that will tell us how much *H. pylori* is present, which I think is useful, and I'll come back to that, and then we have a test that would determine what virulence factors are present. These are genes that code for proteins that express within the *H. pylori* organism that make it more virulent. And that's an important factor. And then there's the breath test called BreathTek, and this is a really good test because it measures [the] biological activity of *H. pylori*. It measures gases in the breath that would only be present if *H. pylori* is active.

A perfect world testing scenario would have all of those elements, and unfortunately, that is possible to do. But the only test right now that I'm aware of that screen in, the sort of Functional Medicine world outpatient setting that screens for virulence factors, is the Diagnostic Solutions GI-MAP. And I have some concerns with that test for other reasons. And so we're not using it as much as we used to. But I do like that about it, that it looks at virulence factors. So stepping back, what are the things that would determine whether to treat or not? So one is quantity. A lot of *H. pylori* is probably more harmful than a little bit. And if studies have shown that if somebody is well above the threshold that's been determined quantitatively, then that's going to be a bigger issue. It's going to cause more problems.

The second is virulence factors, as I described. There are actually quite a few studies that have shown that if *H. pylori* is present, particularly in moderate or smaller amounts, but it's not expressing any virulence factors, then the association between *H. pylori* and all the bad stuff that we think about, increased risk of ulcers and gastric cancer and all that, that association actually decreases or goes away in most cases. So, put a different way, if those virulence factors aren't present, there's not really much evidence that suggests that *H. pylori* is harmful. And in the breath test, that's a very good test and is definitely the most evidence-based method of determining the success or failure of a treatment. So we will often use the breath test as a follow-up after we've treated *H. pylori*. But it can be useful also even just for detection.

And so what's started to happen since we're not using the Diagnostic Solutions GI-MAP test as much as we were before is if we detect *H. pylori* in a stool test, then we will follow up with the BreathTek test. And if both are positive, then we will treat. And if the stool test is positive, but the BreathTek test is negative, then we're less likely to treat. Now again, we're rarely treating individual things in a vacuum. So one very common scenario is that you get a positive for *H. pylori* on a stool test, a negative on the BreathTek follow-up, but then that patient also has [small intestinal bacterial overgrowth] (SIBO) and two parasites and disrupted gut microbiome. So we then will use the botanical protocol as a starting place to try to address all of those things and *H. pylori*, the levels of *H. pylori* might be reduced in that context, and that's fine. Again, we're not trying to not treat it. But we just don't necessarily consider that as an objective in the treatment plan. If it happens to be a positive side effect that decreases or even is eliminated with the treatment, that's fine. But we're not considering it a treatment failure if SIBO is gone and everything else is gone and the patient is feeling great, but they still have a little bit of *H. pylori*.

However, if we treat all of those other things and they're gone, and the patient is still not feeling well and still having GI issues and *H. pylori* didn't budge, then in that scenario, we might consider going after the *H. pylori*. And that's just because there's still a lot we don't understand about all of this. It's possible that *H. pylori*, even at a lower level, might be problematic for one person when it's not for most other people. And that's, again, we have to remember not to get stuck in this myopic view of infectious disease where the only factor is the presence of the pathogen. We have to consider the pathogen-host interaction, right? So if the host ecosystem

is depleted, the immune defense is depleted for any number of reasons, or maybe there's genetic or epigenetic sensitivity to a particular organism, or there's always the X factor of tests not being accurate, which, unfortunately, is something we have to consider. Even with a pretty accurate test, it's never 100 percent. So, that's where clinical judgment comes in. And I just want to really encourage all of you to keep that in mind. Medicine is art and science, and as you gain experience, you'll have a better sense of when to go beyond what the test results are telling you and use your clinical judgment.

Okay, thanks for those questions, Rick. They were really helpful and a good doorway into talking about other stuff. Any other questions from the folks who are on the live call? For those of you that have just joined, there were no questions sent in this month. So we're just doing any questions from folks on the live call. And if there aren't any, we can end a little bit early and give you back some time, which is never a bad thing. So I'll just wait another couple [of] minutes, and if anyone has questions, let me know.

Katie: We have a hand raised.

Chris Kresser: Oh, great. I had something covering there. I didn't see it. Awesome. I meant to say that in the beginning for folks to come on and say hello. So I'm going to, let's bring Michael on to ask a question and say hello to everybody. Any progress there, Katie? Is it going slowly?

Katie: Yes. It says that he'd be rejoining as a panelist, but I'm not seeing any progress.

Chris Kresser: Not happening?

Katie: Perhaps I can just unmute, too.

Chris Kresser: Yeah, try that. Or maybe I can answer Rick's question, [and] you can try again. Let me do that, and you can work on that in the background, Katie.

Rick says, "I just got a third stool test that showed staph and strep in a patient. She wears a mouth guard at night. Could bad hygiene be the cause of staph and strep presence?"

It could be. There are a few things like I wonder with the oral microbiome, whether it's similar with the nasal microbiome. In the nasal microbiome research, Dr. Susan Lynch at UCSF determined that it wasn't so much the presence of pathogens that was an issue, which a lot of people had. It was the overall diversity of the oral microbiome. So people who are lacking keystone species of beneficial bacteria had issues. Whereas [for] other people who had those beneficial bacteria, there was no problem even when the strep or staph were present. But one thing you could do is try oral probiotics and see if that makes a difference.

PRO-Dental is one brand that's pretty good. There are chewable tablets, and I've seen that help with this kind of situation.

All right, [it] looks like we figured it out with Michael. Go ahead, Michael. You're free to start your video if you'd like, as well. We almost figured it out. Let's see if I can, can I unmute? I'm not able to unmute you, Michael. Are you able to? It's down on the (crosstalk 22:13).

Katie: I have asked Michael to unmute, but I'm not seeing a response here. So perhaps it was an accidental hand raise.

Chris Kresser: Well, maybe. Yeah, and Zoom, we've had lots, Zoom is generally good. But sometimes strange things happen. It's hard to say for sure. Okay, any other questions aside from Michael, assuming he does have a question? We're unfortunately having trouble bringing [him] on. Michael, if you can hear us and you do have a question, you could put it in the Q&A box instead. And on the next Q&A, we'll try again to bring you up on the live call. Anybody else?

Okay, everybody. Well, thanks for taking the time to join. [I] hope you can use this extra time back in your schedule, and feel free to send questions in. There [are] lots of different ways to do it. As you know, you can send them in and have them answered between the sessions, or you can join the live sessions as you've done today. So have a great week, everybody. Talk to you next month. Bye-bye.