

Live Case Recordings #1 - Case Review Part Two

Chris: Two more tests to go over. There is the DUTCH hormone profile. Actually, somewhat surprisingly, this looked pretty good overall. Your sex hormones were in the menopausal range. They were below the premenopausal range, but that doesn't apply to you. Estrogen and progesterone were within the range you'd expect for a woman in menopause. Testosterone was normal. Total DHEA was normal but at the low end of the range.

Metabolized cortisol was normal, slightly low-normal but well within the range. Free cortisol was high-normal. Most of that, I think, or at least some of that, is coming from high nighttime cortisol. Your nighttime cortisol is above what it should be, and your nighttime cortisone is above what it should be. Then your melatonin is low, and cortisol suppresses melatonin.

Christine: And that's why I have problems sleeping?

Chris: Yes. At the very time where you want your cortisol to be dropping and your melatonin to be going up, that's not happening. Your cortisol is actually staying high, and your melatonin is being suppressed and can't increase as it should. That's something that we'll want to address as well, and it should help with your treatment.

Christine: Okay.

Chris: Let's see here.

Christine: And I'm postmenopausal. I went into menopause in 2006.

Chris: Okay.

Christine: So, it's been 10 years.

Chris: Yeah, and so that's relevant with the sex hormones. Okay, so, the Quicksilver heavy metal panel, actually those look good too. Your nutrient elements, you are well within the normal range for all of them except your magnesium is a bit high, and that's not surprising given the amount of magnesium that you're taking. Hopefully addressing some of the GI issues will enable you to lower your magnesium dose because excess magnesium supplementation can cause problems with potassium and other electrolytes, so I'd ideally like to get you down on that magnesium dose, and that's being reinforced here. The normal range for magnesium is 2.8 to 4.05, and you're at 4.22.

Christine: Okay.



Chris: The rest of your elements are good. There is no evidence of metal toxicity. Your mercury levels were virtually undetectable. Your lead was below 1. Arsenic was in the 30th percentile, so everything is looking pretty good there.

Christine: Okay. And I don't have any metal fillings.

Chris: Right. And you're not really absorbing any particular amount of mercury from seafood. Your total mercury is 0.4, which is really low, so nothing to be concerned about there.

Christine: Okay.

Chris: The visual contrast sensitivity test, though, that you did was pretty strongly positive for both overall score and biotoxin exposure. This is something that we're going to want to come to for sure.

Christine: Okay.

Chris: Were you exposed to some biotoxin at some point that your body has not been able to deal with that is contributing to this ongoing inflammatory picture?

So, in terms of follow-up testing, the only two that I want to do right now are parathyroid hormone and ionized calcium as the follow-up for the low PTH. Then occult blood through LabCorp as a follow-up for the occult blood on the Doctor's Data panel. I'm also ordering just two tests; the SIBO breath test and then the stool test, Doctor's Data, which is a significantly pared-down version of the Doctor's Data and BioHealth stool tests just to check for the things that were out of whack.

Christine: Okay.

Chris: So that we can retest after the protocol.

Christine: Okay, so this will be in a few weeks?

Chris: Yes. You're going to do the protocol for 60 days. Let's talk about that. For the H. pylori, the dysbiosis, and gut inflammation, I'm going to prescribe an antimicrobial botanical protocol. It's mostly herbs and nutrients that have an antibacterial effect, and it includes some things that are specific for H. pylori. You'll have a handout in your portal that describes how to do this.

Christine: Okay.

Chris: In terms of diet, I'd like you to stick with what you've mostly been doing, such as a Paleo autoimmune type of protocol.

Christine: Not the low histamine?



Chris: If histamine is still bothering you, you could definitely do that and just do it according to your experience.

Christine: Well, when you say is it still bothering me, what kind of evidence am I looking for?

Chris: Any reaction to the foods that would be excluded on a low-histamine diet, and that could include—

Christine: Oh, introducing them back in, you mean?

Chris: Yeah.

Christine: Okay. I haven't even tried to introduce them back.

Chris: Did you experience any improvement from removing them?

Christine: No, not really any different. No.

Chris: If you didn't experience any difference, then I think it's unlikely that you have an issue with histamine in food. Most people when they do, it is very noticeable. I would just go ahead and add those back, and I would consider, if you're not already doing, try removing nightshades, dairy.

Christine: I don't have any nightshades or dairy.

Chris: That's why I meant kind of just proceed with what you already have been doing regarding that. For the antimicrobial protocol, I would suggest you do it for 60 days. This will all be in a follow-up that we send you with detailed instructions.

Christine: Okay.

Chris: You do it for 60 days, and then you'll stop all of the antimicrobial supplements for two weeks before you do the retest. You have to be off the supplements for two weeks in order for the tests to be accurate.

Christine: Okay.

Chris: Then, you'll do the retest. We would have our appointment ideally two to three weeks after you send in the retest kits to allow us—

Christine: Like at the end of January. Okay.

Chris: —allow us enough time to get the results back.



Christine: Okay.

Chris: Now, in addition to the antimicrobial protocol, which will be the primary focus of the first phase of the treatment plan, I also was going to suggest a liposomal form of B12 or folate, but given that you've already been taking sublingual at such high doses, I'm skeptical that this would provide any additional benefit. Do you think your local physician would be willing to try B12 injections?

Christine: I can ask. Probably my neurologist would. Yes, I can ask.

Chris: I think it would be really worthwhile to do that and then to even redo the urine methylmalonic acid. We can just order that as a single test through LabCorp. We don't have to do the whole organic acids urine test and see if it is any different.

Christine: Okay.

Chris: Just as importantly, see if you notice any symptomatic improvement or difference above and beyond what you've had with taking the sublingual varieties.

Christine: Versus the injection?

Chris: Yes. Exactly.

Christine: Okay. And how often are those injections?

Chris: I think you should be able to determine whether it will help just from a single injection.

Christine: Okay.

Chris: But I would maybe try two, at least, to be sure.

Christine: Okay.

Chris: It depends on the dose that he prescribes, but they should be able to advise you on that. I will if they don't.

Christine: Can you put that in my portal, the dose? So when I go talk to her...

Chris: Sure. Hydroxy—I'll put the form too. Hydroxocobalamin is the best form for injection.

Christine: Okay.



Chris: Methylcobalamin is very sensitive to light, so it can't be easily stored in the vials. Cyanocobalamin is the synthetic form. It's not necessarily as easily converted, so hydroxocobalamin would be best. They do make that, and it's relatively easy to get.

The only other thing would be stress management. You didn't hear me talk about the supplements to lower cortisol?

Christine: No.

Chris: Okay. So, HPA Balance and phosphatidylserine are two supplements that will help lower your nighttime cortisol and thus improve melatonin and hopefully improve your sleep. I don't want to do too much else beyond the antimicrobial protocol to start because that involves a number of supplements, and it's enough to focus on. The HPA Balance and phosphatidylserine are important because they should help you sleep, and that helps everything else.

Christine: And that would be great. And you know I urinate during the night, so that's part of my problem. I fall asleep, and then I wake up and go to the bathroom. Then I can't go back to sleep. It's not like I'm sleeping and then I wake up for no reason.

Chris: Right. Even then, it might help you fall back asleep. If this doesn't work, there is a lot more that we can try for sure.

Christine: Okay.

Chris: I'm going to give you a handout. It has some recommendations for stress management because stress management is crucial above and beyond the supplements for regulating the HPA axis. Check out that handout and implement some of the suggestions there. I think that will help a lot.

Christine: Now, did you go over my folate too?

Chris: Yes. The folate is looking normal. The formiminoglutamic acid on the urine test was normal, and your serum folate was normal.

Christine: Okay.

Chris: The impaired methylation, if that is the case, that's being caused by low active B12, which, as we discussed, is a little puzzling given what you are doing, but we'll see what effect the injections have.

Christine: Okay.



Chris: The next step after this is we'll retest. We will see how treating your gut affects all of your other symptoms. We'll retest for parathyroid hormone and occult blood. I'll probably want to move forward with testing the biomarkers for chronic inflammatory response syndrome, all of the blood tests that we would do for that, given that you had such a strongly positive visual contrast sensitivity test.

Christine: You know, I was fatigued when I did it, and when I get tired, that happens a lot. I'm wondering if I should retake that test.

Chris: It doesn't hurt. It's pretty easy to do, and cheap, so it might be a good idea to have a second look there.

Christine: Okay.

Chris: There is one more recommendation I have, and it's a book. This will be in your portal so you don't need to write it down, but it's called *Turning Suffering Inside Out* by Darlene Cohen. It's a really amazing resource for anyone who is suffering from a chronic illness or chronic pain. Darlene herself suffered from debilitating rheumatoid arthritis and then survived cancer a couple of times before she ultimately passed away, and she managed to find a lot of joy and peace in her life even despite those challenges. So, it's a book that I often recommend for people who are dealing with chronic illness and pain. It can be really helpful.

Christine: Okay. Now, there's something that we didn't address, and that's my hot flashes. I go from very hot to very cold. I know you said my hormones are normal.

Chris: Yes. So, sometimes problems with temperature regulation can be more related to autonomic nervous system function and neurologic issues. One possibility is that if you do have biotoxin exposure, that is affecting your neurological system. Certainly MS is a neurological disease, so it may be that it's not so much hormones, which most people think of with hot flashes or symptoms like that, as it is an issue with the neurological system. If that's the case, then all of the other things that we're trying to do to help regulate the immune system would help with that. It doesn't appear to be related to hormones given your hormone levels, but we could eventually do serum testing for hormones or other testing just to make sure that we're not missing something.

Christine: Okay.

Chris: According to the labs that we have now, it doesn't appear to be related to hormone imbalance.

Christine: Okay. The other thing I don't know if you caught in my thing, but I have a sore on my vaginal area and one in my ear that just will not heal.

Chris: Yes. Have those been looked at or diagnosed? Has anyone looked at those and given you any sense of what that might be?



Christine: I had my doctor look at it once, but he gave me a cream, but he did not diagnose it.

Chris: I will be curious to see how the antimicrobial protocol affects this. Sometimes if there is imbalance in gut microbiota, there is also imbalance in microbiota elsewhere in other areas of the body, and the antimicrobial protocol will often help with those. Let me know whether the antimicrobial protocol helps with that when we speak for the next follow-up.

Christine: Okay. Then, am I going off my normal supplements in addition, or am I changing everything?

Chris: That is one of the things I wanted to do at the end of the appointment here because I have your list. The standard way of answering that question is the supplements that you are currently taking that you know help you, I would like you to continue taking them. Those that you are taking that you either don't know if they help or are pretty sure that they don't and you haven't noticed any benefit with or difference at all, I would like you to stop taking them.

Christine: Okay. I know the calcium I take, fish oil, and the biotin. I'm almost out of vitamins, so I would rather you tell me what to take and whether to change the whole thing.

Chris: I'm fine with you sticking with those. What is the dose of calcium that you're taking right now?

Christine: I want to say 2,000 mg. Is that low?

Chris: It's pretty high actually.

Christine: It's actually the maximum.

Chris: What symptoms improve with that?

Christine: Pain. Muscle cramps.

Chris: Okay.

Christine: And the magnesium?

Chris: There is some data that concerns me about long-term supplementation with calcium, especially high doses. We want calcium to be in our bones and our hard tissues like our teeth, but we don't want it to be in our soft tissues like our arteries because if the arteries become calcified, they are less flexible and fluid, and we're more likely to have a cardiovascular event. Your serum calcium is not elevated, so that's something that is good. I would be more concerned if your serum calcium was elevated. I'm also hoping, like with the magnesium, that we can transition you off the calcium entirely or at least off the higher doses because of those studies that I've seen that suggest higher risk of cardiovascular-related events with long-term calcium supplementation.



There used to be an idea that calcium supplements, especially for women of your age, improved bone health, but that has been largely debunked at this point. I know that it is helping you, and I'm reluctant to—Christine, are you there?

Christine: I do have osteoporosis.

Chris: Yes. The idea was that calcium supplements, especially for women of your age, improved bone health, but that has been largely debunked at this point.

Christine: Okay.

Chris: Search for "Chris Kresser calcium" and you'll see some recent articles that I've written about that. There's little evidence to support it. That's different than you saying that you actually notice an improvement with calcium. I'm not doubting that at all.

Christine: Actually, my bone density test, I had it. I did calcium for a year and had it again, and my osteoporosis had improved.

Chris: Interesting.

Christine: It reversed it. She said I'm the first person she has ever seen it reversed.

Chris: That fits with the data because the data suggests that, on average, it doesn't benefit osteoporosis, but you know, the data just looks at averages, and it doesn't mean that individuals won't have a different experience. They average out everyone's experience and come up with a recommendation based on that. It may be that you were actually calcium deficient. If someone has normal calcium levels, taking calcium will not be helpful, and it may even be harmful, but if someone is calcium deficient and they take calcium, that may be helpful. I guess the question now is, now that you've taken it for as long as you have, it's pretty unlikely that you are calcium deficient, and is taking it for an ongoing period of time going to possibly solve one problem and cause another? Certainly, I think reducing the dose would be warranted at this point and then possibly reevaluating, in three months, whether you need to take it all would be a good idea.

Christine: Okay.

Chris: Okay, so stick with those three supplements that you know work well and then just add the others that I'm recommending for this time. We will talk in January at some point and go from there.

Christine: Okay. Then just get back. I'm going to take those three supplements and what you're going to prescribe. How do I get those supplements?



Chris: My staff will be in touch with you in the next few days with a detailed follow-up with all the instructions, how you order them,—everything like that,—the handouts that you need, and the protocols. That will come to you in the next 24-to-48 hours.

Christine: And then I'll be talking to my doctor about the B12. Do you want me to quit taking the B12 I've been taking, or should I continue with that?

Chris: You can continue with it for now, but when you do the injections, you'd probably want to stop them.

Christine: Okay.

Chris: Okay. Any questions before we finish up?

Christine: The other thing is I take acyclovir. I take that every day, and we didn't address that part.

Chris: Was that originally prescribed for—do you have a reactivated viral infection?

Christine: Yes. That's for the ear and the vaginal area.

Chris: That is what I was going to ask about.

Christine: Also, if I go off it, my mouth breaks out. I get canker sores too.

Chris: So, stick with that for now. Ideally, when we address all the other factors that could cause immune dysregulation, we may be able to get you off that and take other things to just naturally regulate and support your immune function, but for now, I don't want to make another big change in the midst of doing these other changes.

Christine: Okay.

Chris: Okay, Christine. Good luck with the protocol. Let us know if you have any questions once you've had a chance to look it over. Otherwise, we'll talk to you in January.

Christine: So thank you and God bless. I appreciate it.

Chris: Take care. Okay. Bye-bye.