

The Tuesday Minute

Nutritional information.... one byte at a time

This Week's Topic

70% Of Patients With Chronic Arthritis Carry “Silent Infections”

I'm sure you like most clinicians have in your repertoire certain health conditions that as soon as a patient comes in with one of those conditions you will say to yourself “That’s a piece of cake. I can fix that.” I want to encourage you to develop another subspecialty that is recession proof. That subspecialty is the reduction of pain and inflammation using nutraceuticals.

What if you were the expert in your community, not just in physical medicine, but an expert in “natural approaches to pain.” Take into consideration “over the counter pain medications” still dominate as the number one selling class of drugs. If you add into that figure the number of nonsteroidal anti-inflammatories (NSAIDs), we are talking about a lot of people experiencing pain and inflammation.

Dealing with chronic pain is like a puzzle and the pieces have to be systematically examined until the major one is discovered. One piece is the need for essential fatty acids. Another piece is the epidemic deficiency of vitamin D. (Side note: I just found out that 25-hydroxy vitamin D is the number one test ordered by physicians in the US.) Also another piece to the puzzle most clinicians are less likely to be sensitive to is silent infections.

According to the journal "Annals of the Rheumatic Diseases," a 1991 article disclosed that 70% of patients with Chronic Inflammatory Arthritis's are carriers of “silent infection.” Bacteria, yeast/fungi, amebas, protozoa, and other “parasites” are an unknown cause of neuromusculoskeletal inflam-

mation. Incidentally, when we talk about parasites, we're not just talking about worms.

Regardless, as we piece together this puzzle, ultimately we are seeing the GI tract being dysregulated. Whether it is from allergens like gluten or dairy, or the immunological battle between white blood cells and infectious agents, "the GI tract becomes compromised." Toxins in the form of antibodies, endotoxins, or even metabolic byproducts are released into the bloodstream and new levels of inflammation are mounted to combat the invaders.

One of my favorite authors Dr. Alex Vasquez has written a great paper on this subject, and you can download it for a more thorough discussion; but for our purposes, I want to make this point abundantly clear: Microorganisms can cause disease even when not causing obvious infection.

Dr. Vasquez lists 14 different mechanisms articulating why these organisms, we'll call them “the bugs,” can cause serious biochemical or immunological patterns that end in inflammation and or serious pain.

The organisms may not be pathogenic in origin but their presence causes distinct changes in physiology. The body adapts or compensates to its surroundings and as it does, often times, healthy tissue is damaged. This is one of the mechanisms for leaky gut and inflammation.

Exotoxins are the byproducts of metabolism for many of “the bugs” whether bacterial or fungal.

Another class of toxins are called endotoxins. Endotoxins refer to the outer membrane portion of Gram-negative bacteria. The covering of the bacteria contain both a fat soluble component as well as a long chain sugar hence the name lipopolysaccharide or LPS.

Our understanding is growing on how lipopolysaccharide affect gut health. Lipopolysaccharide act as endotoxins because they promote the secretion of pro-inflammatory cytokines in many cell types but especially in macrophages. So an excess or overgrowth of “even normal” bacteria in the gut can cause inflammation and ultimately a compromised GI lining, what we currently call leaky gut.

Here’s how Dr. Vasquez describes the phenomena, “endotoxin / lipopolysaccharide is one of the major activators of nuclear factor Kappa-B. NFkappaB activation is a major rate-limiting step in the production of pro-inflammatory cytokines and in the induction of proinflammatory enzymes such as cyclooxygenase commonly called Cox 2, lipoxygenase, and inducible nitric oxide synthase. The link between dysbiosis and systemic inflammation becomes clear: gastrointestinal bacterial overgrowth leads to excess production and absorption of endotoxins, which then initiates immune dysfunction and a systemic proinflammatory response.” This means that eradicating microbes from the internal or external environment can help cure otherwise “incurable diseases.”

The beauty is that to do it, we don’t have to use harmful agents with side effects.

Now before we go further lets consider the potential areas of dysbiosis. Dysbiosis is the condition of having microbial imbalances on or within the body. Dysbiosis is most prominent in the digestive tract or on the skin but can also occur on any exposed surface or mucous membrane such as the vagina, lungs, nose, mouth, genitourinary tract, sinuses, ears, nails, or even eyes.

So what do we do with all this information? Who should we test? How should we test? The answer lies in our understanding. If we really understand dysbiosis and the mechanisms involved, we would be looking for ways to integrate this information as we treat patients with gas, bloating, alternating constipation/diarrhea, irritable bowel syndrome, fibromyalgia, chronic fatigue syndrome, multiple chemical sensitivity, severe allergies, arthritis, and autoimmunity. In fact the more unusual the case, the more we need to focus on the gut.

Numerous labs perform tests that can evaluate digestion, identify and even culture the bugs to see what may be present. Personally, I explain the micro-organism story to a patient. Inform them we may have to do some extensive, expensive testing. Help them understand, we could do the testing but I would rather start with diet, digestion, and some form of detox and see what happens. Most patients are willing to do some house cleaning if they perceive your confidence.

There’s related Tuesday Minute support in depth explanations about treatments. These cover testing and I give definite opinions on what to do. But here, I want keep the emphasis on my first point. I want to encourage you to step back and see the big picture. See the opportunity that is presenting itself be known as the expert on pain, inflammation, and dysbiosis in your community.

The need is huge. Patients will sense confidence and your conviction. In reality, you are offering them real hope for challenging problems. Print out the article below by Dr. Alex Vasquez. You’ll definitely want to save it for your files.

Again, thanks for reading this week’s edition, and I’ll see you next Tuesday.