Brain on Fire--Brain Inflammation, Cognitive Decline and Depression Transcript

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What Inflammation Means

Hi, it's Dr. Susan Sklar with the Thought of the Week, and this week we are going to talk about inflammation and your brain. I want to just take a moment to explain inflammation because a lot of people don't really understand what that means.

We call inflammation the brain, brain on fire. And the reason for that is if you can think of a situation where you actually observe the inflammation, for example, if get a splinter or a cut and it starts to get irritated.

The first thing that'll happen is it'll feel sore. Then the skin and tissue in the area will turn red and eventually become what's swollen. And this is the result of your body fighting off something it perceives as harmful, like a splinter with some germs on it or a cut that may have, whatever the object was, may've had some bacteria on that your wants to be sure doesn't travel and spread throughout your system.

So inflammation is your body's way of taking care of you. However, in some circumstances, inflammation and the inflammation response goes awry.

Signs and Causes of Brain Inflammation

And we see that happen with brain inflammation. Some of the symptoms, like how do you know if your brain is inflamed, having brain fog, memory problems, depression, a slower functioning brain, all of these can be signs of brain information.

The causes of information are many. but we know that predisposing risk factors are things like diabetes, a history of head trauma, autoimmune disease and other places in your body such as rheumatoid arthritis which affects the joints, ulcerative colitis and Crohn's disease which affect your intestine.

These auto immune disorders produce chemicals called cytokines. The cytakines travel across the blood brain barrier which is supposed to protect your brain But in certain circumstances, it's kind of leaky, and these cytokines come across and start inflaming your brain.

In addition, you have cells in your brains called microglia. These are protective helpers and carers for the neurons, or nerve cells, in the brain, so they normally will carry away debris.

Things like beta amyloid, which we know has been implicated in Alzheimer's, they will clear away dead neurons, dead nerve cells. But sometimes the microglia get activated.

And they get activate by inflammation in other parts of your body or by a head trauma. Once they activated, they don't seem to shut down.

Microglia and Neurodegeneration

Some of the early signs of activation is that your brain may function more slowly than previously. Other things that can happen are that you're brain energy is decreased.

so that your brain fatigues more easily. And then finally, after the microglia have been activated for long enough, they will start to actually kill off your own nerve cells.

That's when we see people with impairments from Alzheimer's, Parkinson's and some of the other

neurodegenerative disorders. Some of things that you can do about brain inflammation are to do things like remove inflammatory foods from your diet.

We know that gluten and grain as well as dairy products tend to be very inflammatory. So eliminating those products. Eating a huge variety of vegetables, multicolored vegetables because the antioxidants that are in those vegetables are anti-inflammatory.

Supplements are helpful for reducing inflammation. Fish oil.

Diet and Supplements to Reduce Inflammation

vitamin D, and curcumin. And lastly, there are lifestyle changes that are very important. Removing refined carbohydrates from your diet. We do know that diabetes is a risk factor for Alzheimer's disease because of the blood sugar regulation problems that occur that end up inflaming your brain.

So removing refined carbohydrate from you diet and if you're a diabetic, really getting your diabetes under tight control. And last of all is stress. Stress is very inflammatory producing for your brain.

And I know it's not easy to get rid of the stress in your lives. You have elderly parents you might be taking care of or teenagers or your job may be very stressful or maybe you have a long commute to work.

Stress Reduction and Self-Care

All of these things are stressful and not good for you brain and although you may not be able to remove them from your lives, you certainly can do things to diminish the effects of stress on your brain.

What are those? Meditation, yoga, prayer, Tai Chi, getting a massage, all of these are stress reducers that actually will undo some of the physiologic damage that's done by stress in your life.

So I know you can't remove stress, But you can at least start by taking better care of yourself and go get a massage. Relax. We'll talk to you next time.