The Hidden Infection Connection: How Viruses Impact Your Kidney Health Transcript

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Viral Infections and Kidney Health

Some people can have a coxsacky infection and recover completely with no kidney issues, while others develop chronic kidney problems. Why is that? This brings us to the concept of biological individuality, a cornerstone of functional medicine.

Your unique genetic makeup, your existing microbiome balance, your nutritional status, and your overall immune function all influence how your body responds to a viral infection.

For example, someone with optimal vitamin D levels and a balanced gut microbiome may mount an effective immune response that clears the virus without excessive inflammation.

Did you know that a virus you caught years ago could be silently damaging your kidneys right now? It's a startling scientific fact. Research have found that certain viral infections can persist in kidney tissue for months or even years after the acute illness has passed.

gradually impairing function through ongoing inflammation and cellular damage. Today I want to talk about something that's often overlooked in kidney health discussions, viral infections and their profound impact on kidney function.

Coxsackie Virus and Kidney Damage

Specifically, we'll be looking at how certain viruses can trigger kidney problems focusing on coxsackie virus as a fascinating case study. When most people think about kidney disease, they immediately think about diabetes, high blood pressure, or perhaps genetic factors.

But what many kidney doctors don't discuss with their patients is how viral infections can silently damage kidney tissue. setting the stage for chronic kidney disease down the road.

I became interested in this connection years ago when I noticed a pattern among some of my patients. They would come in with declining kidney function, but without the usual risk factors.

When we dug deeper into their health histories, many reported having a severe viral in less months or even years before their kidney problems began. Let's talk about Cox's virus as an example.

This virus, particularly the group B type, has a special affinity for kidney cells. Research shows that it can directly infect different types of kidney cells, including those in the glomeruli, the kidneys fill units, and the tubules, the structures that process your filtrate into urine.

What's particularly concerning is how this virus behaves differently depending on which kidney cells it infects. In some cells like the podocytes, in your blobuli, it causes immediate damage through cell death.

In others like the mesenchial cells, it may not kill the cells outright but can set up a persistent infection that impairs their function over time.

Patient Case: Unexplained Kidney Decline

This reminds me of a patient I saw a few years ago. A man in his who came to me with unexplained kidney function decline. His GFR had dropped from a normal to around 45 in just a year.

But his doctor couldn't identify the cause. He didn't have diabetes, his blood pressure was well controlled, and he had no family history of kidney disease.

When we took a detailed history, we discovered he had experienced a severe summer flu about 18 months earlier. High fever, extreme fatigue, muscle aches and a rash.

He never got a specific diagnosis but the symptoms were consistent with a viral infection or a coxsack infection. We ran specialized testing and found evidence of past viral infection that had triggered an autoimmune response affecting his kidneys.

By addressing the lingering inflammation and supporting his immune system appropriately, his kidney function stabilized and eventually improved to 55.

This wasn't just about treating, it was about identifying and addressing the root cause. Now let me explain how viruses like Coxsackie can damage your kidneys through multiple mechanisms.

First, there is a direct viral damage. When viruses infect cells, they cause immediate cell death or dysfunction. Coxsackie virus, for instance, can directly infect and damage the cells lining your kidney tubules.

How Viruses Harm the Kidneys

Second, there is the immune response. Your body mounts a defense against a virus. But sometimes this immune response can become misdirected and attack your own kidney tissue.

This is what we call molecular mimicry where parts of the virus look similar to your own tissue, confusing your immune system. There is a potential for persistent infection.

Some viruses, including coxsackie B, can establish a persistent presence in your tissues. They may not cause acute symptoms anymore, but they continue to trigger low-grade inflammation that damages your kidneys over time.

Fourth, some viruses disrupt cellular processes critical for kidney function. Coxsackie, for example, can interfere with autophagy, your cell's built-in recycling system.

When this process is disrupted, cellular waste builds up, further damaging kidney tissue. But here is what I find fascinating. While infections don't affect everyone's kidney the same way, some people can have a coxsacky infection and recover completely with no kidney issues, while others develop chronic kidney problems.

Why is that? This brings us to the concept of biological individuality, a cornerstone of functional medicine. Your unique genetic makeup, your existing microbiome balance, your nutritional status, and your overall immune function all influence how your body responds to a viral infection.

For example, someone with optimal vitamin D levels and a balanced gut microbiome may mount an effective immune response that clears the virus without excessive inflammation.

Biological Individuality and Risk Factors

In contrast, someone with vitamin D deficiency an existing gut dysbiosis or imbalance might experience an exaggerated inflammatory response that causes collateral damage to the kidneys.

This is why a personalized approach is so crucial. When I work with patients who have kidney function decline, Potentially triggered by a viral infection or any other infection, we look at multiple factors.

We assess immune function through specialized testing, looking at inflammatory markers and V4 CD8. We evaluate gut health since about 70% of your immune system resides in your gut.

Imbalances here can significantly affect how you respond to infections. We check for nutritional deficiencies that might impair your body's ability to recover from viral damage.

particularly antioxidants like glutathione that protect kidney tissue. We look for ongoing sources of inflammation that might be preventing full recovery.

Then we create a personalized protocol to address these factors. This might include specific anti-inflammatory nutrients, immune-modulating herbs, gut healing protocols and targeted detoxification support.

Now I want to emphasize that I'm not suggesting that all kidney disease is caused by viral infections, far from it. But I'm suggesting that viral infections represent an underappreciated trigger that deserves more attention, especially in cases where the usual suspect don't explain the kidney dysfunction.

So what can you do with this information? First, take viral infections seriously. Even those that seem just like a bad flu can potentially impact your organs, including your kidneys.

Personalized Support and Prevention

Give your body proper support during and after infections. Second, if you had a serious viral illness in the past and are now experiencing symptoms like fatigue, foamy urine, swelling in your ankles, consider getting your kidney function checked.

Third, focus on supporting your immune system daily through proper nutrition. stress management, adequate sleep and gut health. These foundations help ensure that when you do encounter a virus, your body can amount an appropriate response without excessive collateral damage.

I believe that understanding these hidden connections like the one between viral infection and kidney health represents a significant opportunity in preventing and addressing chronic disease.

By looking deeper than the surface symptoms and understanding the mechanisms at play, we open up new possibilities for healing. Of course, everyone's body is different and what works for one person might not be the right solution for another.

That is why working with a physician who understands these complex interactions is so important. I hope this discussion has given you a new perspective on kidney health and perhaps some insights that will help you on your wellness journey.

Remember, true health isn't just about managing symptoms, it's about understanding and addressing the root cause that is unique to your body. Bye now.

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