The Link Between Lupus and Kidneys

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Lupus and Kidneys: What You Need to Know

It is estimated that about 50 percent of those diagnosed with lupus develop kidney problems.

In the context of lupus, kidney problems are called lupus nephritis. With lupus nephritis, you might have symptoms of high blood pressure, foamy urine, and swelling of your feet. This article helps you understand lupus nephritis and its epidemiology, cause, signs and symptoms, diagnosis, treatment and complications.

Lupus nephritis more commonly affects adult women than men; however, men typically have a worse prognosis. It is reported most frequently in black individuals, followed by Asian and Hispanic. Kidney complications are least likely to develop in white individuals.

Lupus leads to the kidney damage characteristic of lupus nephritis. In lupus, the body's own immune system attacks its own cells and organs, including the kidney.

Both genetics and the environment play a role in who develops lupus nephritis. Lupus and its kidney complications are more common in first-degree relatives with the same condition.

On the other hand, research on identical twins with lupus has found that sometimes, only one twin will develop lupus nephritis. This suggests certain environmental factors may cause this complication, however the environmental factors remain unclear to scientists.

Signs and Symptoms

Under a microscope, pathologists can see lupus nephritis, even if you do not have any symptoms. In fact, you might not have any symptoms at all.

Often, your healthcare provider will discover lupus nephritis during a routine physical exam and blood test. For this reason, it is imperative to attend all your regular check-ups.

Some symptoms of lupus nephritis include:

- Fever
- Fatigue
- Rash
- Arthritis
- Headache
- Dizziness
- Muscle and joint pain
- Foamy urine

- Visual disturbances
- Lower leg swelling

Diagnosis

Your healthcare provider will conduct a thorough medical evaluation to diagnose lupus nephritis. They will complete a physical exam and ask you some questions about your symptoms. For example, they may ask if you have foamy urine or if you wake up at night to urinate.

They will also complete blood work and ask for a urine sample. They might request a kidney biopsy as well.

During the evaluation, your healthcare provider will be looking for classic signs of kidney damage: protein in your urine, swelling in your lower legs, too little protein in your blood and high cholesterol.

If your healthcare provider suspects lupus nephritis, they might conduct a renal biopsy.

Based on your biopsy, they will classify your condition according to the criteria defined by International Society of Nephrology. Your condition will be categorized as class I through class VI, with class I indicating minor damage and class VI indicating advanced damage.

Lupus and Kidney Management

The overall goal of treating lupus nephritis is to normalize your kidney function and prevent further damage. Your healthcare provider will teach you strategies to manage your symptoms, and they will prescribe medications.

Lupus nephritis is treated with medications that reduce inflammation and suppress the immune system. These medications include corticosteroids like prednisone and immunosuppressive drugs like cyclophosphamide.

Sometimes people with lupus nephritis also have high blood pressure. Your healthcare provider may give you blood pressure lowering medications like angiotensin-converting enzyme inhibitors or angiotensin receptor blockers to prevent further damage to your kidneys.

If you are diagnosed with lupus nephritis, you should avoid over the counter NSAID medications like ibuprofen, aspirin, diclofenac and naproxen because these can harm your kidneys.

Lupus and Kidney Complications

Most of the time, swift and effective treatment can control lupus nephritis and reduce your risk of complications. However, not everyone responds to treatment.

The most severe form of lupus nephritis, diffuse proliferative nephritis, commonly leads to kidney failure. About 10 to 30 percent of patients with lupus nephritis later develop kidney failure.

Kidney failure is also called end-stage renal disease, and it requires aggressive treatments like dialysis (where a machine helps filter harmful substances out of your blood) or a kidney transplant.

People diagnosed with lupus nephritis are also at risk for developing B-cell lymphoma, a type of cancer that begins in the cells of the immune system.

Systemic lupus erythematosus is a disease where the body attacks its own healthy tissues. Lupus nephritis occurs when the body attacks the kidneys. The cause of SLE remains unclear.