Understanding the Connection Between Gout and Kidney Problems

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How Gout Can Affect Your Kidneys

Living with gout can be challenging, painful and unpredictable, especially if lifestyle changes haven't brought your uric acid levels down to normal. If infrequent gout attacks become more regular, you may develop chronic gout, and that can stress other systems in your body, particularly your renal system.

The kidneys are at the center of your renal system, and they manage the outflow of waste products. Uric acid is one of these natural waste products, and when it builds up it can form sharp uric acid crystals — the main culprits in gout attacks. Since the kidneys are responsible for filtering out uric acid, it's no surprise that gout and kidney health are closely related.

When you live with gout, your kidney health largely depends on how well you manage your condition, but simply keeping your blood uric acid level down may not be enough to prevent kidney trouble. Learn how gout, uric acid and kidney function are related in order to protect against painful and damaging complications.

Most Common Kidney Problems

Acute gout attacks can be extremely painful, but the symptoms are often brought under control with medication, and there's a chance you won't experience another painful episode. However, when uric acid is allowed to build up in the blood over a long period of time, gout can lead to widespread problems in multiple systems. In some cases, the damage can be permanent.

Your kidneys are responsible for removing excess uric acid from the bloodstream, so when there's too much of it to dispose of, the kidneys can be overworked. In turn, you could develop:

Kidney Stones

When uric acid crystals lodge in the joints, you get a gout attack; when they settle in the kidneys or urinary tract, you get kidney stones. These small stones are hard and insoluble, and the larger they are, the more pain they will cause.

The sharp edges of kidney stones can physically scar your kidneys, or obstruct pathways and interfere with waste removal. If they go untreated for long enough, infections can develop.

Kidney Disease

Damaged kidneys are at a much higher risk for kidney disease, which is diagnosed when kidney function is severely reduced for three months or more. In many cases, symptoms of kidney disease are vague or mild, especially in the early stages.

Instead of relying on physical symptoms, your doctor can conduct an estimated glomerular filtration rate (eGFR) test or a urine albumin test to get a better idea of your kidney function.

Kidney Failure

When kidney function declines so much that the kidneys can no longer carry out their basic role, you are diagnosed with kidney failure. At this late stage of chronic kidney disease, there will probably be some distinct symptoms that arise from the build-up of waste products in the body: nausea, itching, muscle cramps, weakness, swelling in the feet, and trouble catching your breath are among the most common.

When your kidneys suddenly stop working (acute kidney failure), you might feel back pain or abdominal pain, fever and stomach upset. In general, acute kidney failure brings more severe symptoms that you're more likely to view as an emergency. In comparison, chronic kidney disease moves gradually towards kidney failure, and you might not notice symptoms until the very last stages.

Kidneys are fairly resilient organs, and in many cases, kidney damage or dysfunction can be stopped or even reversed. However, if your kidney problems go uncontrolled and lead to kidney failure, dialysis or kidney transplant may be your only hope for survival. Unfortunately, gout can speed up this disease progression.

How Gout Affects Your Kidney Disease Risk

Your risk for kidney disease jumps quite high when you suffer from gout: about 40 percent of gout patients also have chronic kidney disease. Moreover, the more advanced the kidney disease, the likelier you are to suffer from gout symptoms.

A Dangerous Cycle

Experts suspect that the relationship between kidney disease and gout is so pronounced because each condition feeds the other.

On the one hand, the kidneys excrete uric acid, and that uric acid can accumulate and crystallize, causing gout. However, hyperuricemia (a dangerously high level of uric acid in the blood) can also speed up the progression of kidney disease by overwhelming the waste-removing organs.

The result? A vicious cycle that puts your kidneys at great risk of damage, and eventually, failure.

The Source of the Trouble

As is the case with many chronic diseases, ongoing low-grade inflammation is likely the culprit behind the elevated risk of kidney, hyperuricemia and gout. In these diseases, inflammation is systemic — that is, not necessarily limited to a specific area — which creates a widespread problem that is difficult to control.

Kidney Problems Can Complicate Treatment

There are many medications on the market to treat gout, but co-existing diseases make some options too dangerous. Non-steroidal anti-inflammatory drugs (NSAIDS) are often a first line of attack for acute gout attacks, but not a good choice for those with chronic kidney disease.

Likewise, colchicine is often used for gout pain, but brings side effects that can be too much to bear when another chronic disease is involved.

Drugs that block uric acid production, like allopurinol and febuxostat, can be a better solution, but any medication must be carefully limited and closely monitored to make sure no further damage is done to the kidneys. There is no universal course of action for treating gout and kidney problems simultaneously; your doctor will have to choose and adjust mediation based on the severity of your gout pain, the severity of your kidney problems, and

your overall health.