Uric Acid Nephropathy
Gouty Nephropathy

Uric acid nephropathy is a condition of kidney damage that occurs when there is too much uric acid in the body. When the uric acid is too high, crystals can form in the tissues of the body. When this happens in the kidneys, it is called gouty or uric acid nephropathy.

Uric acid comes from the breakdown of purines in your diet. If too much uric acid is made, or your body does not efficiently clear uric acid from your body, then this can lead to too much uric acid in your blood. The whole system can also get very overworked. In those cases, kidney damage occurs; but the disease does not always cause high uric acid levels in the blood. The disease does not always cause high uric acid levels in the blood.

SYMPTOMS

When uric acid nephropathy leads to sudden kidney failure, symptoms can include:

- Nausea and vomiting.
- Lethargy and seizures.
- Complete kidney failure with the inability to pass your water or urinating less.

If stones form in the kidneys or ureters, some of the problems may include:

- Flank pain.
- Blood in the urine.
- Urinary frequency.
- Uncomfortable or painful urination.

CAUSES

- Most cases of uric acid nephropathy happen during the treatment of cancer. This is because of the increase in uric acid production during chemotherapy.
- Uric Acid Nephropathy happens frequently in people with gout.

Some more common causes of high uric acid in the body include:

- **Overproduction of urate**
  - Breakdown of blood.
  - Lymphomas and leukemias.
  - Polycythemia vera.
  - Psoriasis (severe).
  - Paget's disease.
  - Muscle breakdown.
  - Exercise.
  - Alcohol.
  - Obesity.
  - Purine-rich diet.
- **Decreased excretion of uric acid**
  - Primary idiopathic hyperuricemia.
  - Kidney disease.
  - Diabetes insipidus.
  - High blood pressure.
  - Acidosis.
  - Down syndrome.
  - Starvation.
  - Sarcoidosis.
  - Lead intake.
  - Hyperparathyroidism.
  - Hypothyroidism.
  - Toxemia of Pregnancy.
- **Decreased excretion of uric acid (continued)**
  - **Drug ingestion.**
  - Aspirin (less than 2 g per day).
  - Water pills (*diuretics*).
  - Alcohol.
  - Sinemet.
  - Nicotinic acid.
  - **Combined mechanism.**
  - Glucose-6-phosphate dehydrogenase deficiency.
  - Alcohol.

DIAGNOSIS

- The diagnosis is based on finding uric acid crystals in joints, tissues or body fluids.
- Blood work is done to check on the uric acid levels but is not always abnormal. Kidney function tests and other blood work is also done.
- A urinalysis is usually performed and will show if uric acid crystals are found in the urine. The urine sample is usually normal.

TREATMENT

- The treatment is aimed at stopping the immediate problems and preventing them from coming back. It is also for the prevention of complications which come from longstanding gout or high uric acid in the tissues.
- This is often done with medications.
- If the start of kidney failure has been sudden and more severe, dialysis may be used.
- Your caregiver may have you take a special diet which is low in purines. Just cutting out animal meats is a great help to cut down on your purine intake.
- Keep up a good fluid intake. You should drink enough water to put out 2 to 3 quarts or liters of urine per day.

PREVENTION

- Prevention is done by using medications which decrease uric acid production or with medications to increase the rate of removal by the kidneys.
- Obesity, high purine diets, alcohol, certain medications and too much exercise can elevate the uric acid.

SEEK IMMEDIATE MEDICAL CARE IF:

- You have been put on allopurinol and develop a rash. **This is a medical emergency.**
- You develop flank pain, urinate less or stop urinating.
- Your urine becomes smoky or bloody colored.
- You develop nausea or vomiting.
- You develop lethargy or seizures.

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