Acute Nephritis

What is Acute Nephritis?
Acute nephritis is an inflammatory condition in the filter units of the kidney. These filters are called glomeruli (glé-myr-ý-ly). There are hundreds of thousands in each kidney. Glomeruli are sensitive to injury and swelling. When injured, the glomeruli leak blood and protein into the small tubes that process the urine as it passes through the kidney. If enough blood leaks into the urine, the color may change to a brownish “tea” color or red. This is what usually brings the patient to the doctor.

Causes
In children, acute nephritis is often a result of the body’s response to an infection; the most common one is the bacteria Strep. The nephritis usually occurs 2-4 weeks after the initial infection. The patient may already be feeling better. We call this form of nephritis post-streptococcal glomerulonephritis (GN) or post-infectious GN.

Are we missing something more serious?
Sometimes, a more serious disease can cause acute nephritis. In children, these would include Membranoproliferative glomerulonephritis (MPGN) and Lupus. By reviewing the history, physical and blood tests, we can usually rule out these diseases within a few days.

Complications of Acute Nephritis
Most patients with acute nephritis will not suffer severe or permanent problems with proper medical attention, including dietary & medical therapy.

Common symptoms and side effects of acute nephritis:

- **Retention of salt and water:** Inflamed kidneys like to hold on to salt and water. This may result in increased fluid around the eyes in the morning and around the calves and ankles later in the day.

- **High blood pressure:** High blood pressure (BP) is a common problem in nephritis. It often requires monitoring and treatment. Common symptoms of high blood pressure are new onset headaches and difficulty concentrating.

- **Renal Failure:** A major function of the kidney is to excrete extra water and waste from the body, mainly, salts (sodium and potassium) and products of protein metabolism. Renal failure happens when this function is impaired. Most patients do not need dialysis, as the renal failure is not usually severe.
Treatment
If due to a recent infection, no specific therapy is required. It usually improves on its own. Our main goal is to manage the complications mentioned earlier. To do this we rely on a combination of dietary modification and medications that include the following:

Diet
“Fresh is best and in a box is not.” Reduce sodium (salt) intake by staying away from processed foods and the saltshaker. This will help prevent fluid retention and improve BP control.

Medications
- Diuretics or “water pills” are often used to help remove excess fluid from the body and help control weight and BP.
- Antihypertensive medications may be used to help control BP. We may ask you or your pediatrician to monitor BP and to call us with high numbers.

Blood tests are often needed regularly to monitor your child’s kidney function.

Will my child need a kidney biopsy?
Not usually, if we suspect a non-infectious cause, then we may recommend a biopsy immediately. However, most of the time waiting and watching is the most practical course of action.

For more information about Pediatric Nephrology at Upstate Golisano Children’s Hospital, call (315) 464-6340 or go to www.upstate.edu