Lupus and the Kidneys

Arti Gupta, MD
Dallas Nephrology Associates
Methodist Dallas Medical Center
Kidney disease in a patient with lupus

• To understand this lets talk about
  – Normal functions of kidneys
  – Why do Lupus patients develop kidney disease?
  – How can Kidneys be damaged in a Lupus patient
    • By Lupus itself (Lupus Nephritis)
    • Side Effects of medications used
    • Other diseases that may be affecting a Lupus patient (eg Diabetes and Hypertension)
  – How can kidney disease be diagnosed in lupus
    • When should you get concerned (symptoms)
    • What should your primary care doctor or rheumatologist look for (Diagnosis and referral)
    • What can a kidney specialist do for you (Diagnosis and treatment)
    • How can YOU (the patient) help the team of doctors in treating you more effectively and improve your prognosis
  – Treatment of Lupus Nephritis
Role of kidneys in maintaining health

• Function of the kidneys
  – Eliminate extra water - Clean blood of toxins and waste
  – Maintains a balance in blood essential for healthy functioning
  – Acts as a filter so only “bad stuff” is eliminated and “good stuff” stays in blood
Kidney involvement in Lupus Patients

- **Lupus Nephritis**
  - Autoantibodies (antibodies made by the body’s immune system against its own organs) play a role in this disease.
  - Some of the antibodies go to the kidneys and start a reaction that affects the ability of the kidneys to function.
  - Kidneys start leaking protein in this situation that causes the patient to gain weight, have swelling, and then start losing kidney function.
  - Your doctor may tell you your BP is getting higher too.

- **Side Effects of Medications, Drugs or Dye used for Medical Tests**
  - Pain medication of the class of NSAIDS (like Ibuprofen, Naprosyn, Toradol, Aspirin, BC powder, Meloxicam etc).
  - Some herbs and supplements can cause kidney damage and high BP too (eg Aristolochic Acid).
  - Imaging test with Contrast Dye (CT scans, MRI etc) can also cause kidney damage in some.
  - Recreational / Illicit Drug use (Heroin, cocaine, Amphetamines etc).

- **Other diseases affecting a Lupus Patient**
  - Other diseases like Diabetes, High BP, Stones etc which are unrelated to Lupus may co-exist and cause kidney disease.
Kidney involvement in Lupus Patients

• Lupus Nephritis can cause
  – Acute Kidney Failure
    • needs close follow up and treatment to improve function
  – Chronic Kidney Disease
    • Needs close follow and treatment to slow down loss
  – End Stage Renal Disease
    • Dialysis
    • Kidney Transplant
When should you get concerned about your kidneys?

• Frothy or bubbly urine
• Bloody/ dark brown urine
• Puffiness around the eyes
• Leg swelling
• weight gain (not related to steroid use)
• Decrease in urine amount
• Increase in BP
• Protein or blood in urine at doctor’s office
Tests that can confirm kidney disease

• Some tests that are routinely done by Rheumatologists for Lupus patients to detect kidney disease
  – **Urine dipstick**
    • This can show protein or blood in the urine
  – **Blood test**
    • Your doctor will be monitoring kidney function by a test called “CREATININE”
    • If there is abnormal test in urine and blood, the doctor also will be checking some special tests like “ANTI-dsDNA ANTIBODY AND COMPLEMENT LEVELS”

• If there is a suspicion for kidney disease you will be referred to a kidney specialist and they may perform a “Kidney Biopsy”
Treatment of Lupus Nephritis (Kidney disease caused by Lupus)

- Lupus Nephritis is a common term for several different ways Lupus can affect the kidneys.
- Your doctor will tell you the “class” of the disease.
- Class 3, 4 and 5 require more intensive treatment and monitoring.
- Treatment includes:
  - Prednisone
  - BP medications like Lisinopril and Losartan that help in slowing down leakage of protein from the kidneys.
  - Medications that attempt to “lower” immunity and stop formation of antibodies and their effects
    - Like Cytoxan, Mycophenolate (cellcept and Myfortic), Rituximab etc.
How can YOU (the patient) help YOUR team of doctors

• Regular Follow up with doctors is cornerstone of treatment
• Take the medications as prescribed
• Healthy Living Habits are essential. Do not take anything bad for your kidneys
  – Pain medications like NSAIDS should be taken only in limited dosage with close monitoring by doctors and stopped at the earliest sign of kidney disease
  – Do not take any over the counter medications including herbal medications without discussing with your doctor
  – Avoid using illicit drugs

• Once started on treatment, be compliant with medications.
  – Discuss side effects and alternative treatment options with doctors rather than stopping medications yourself in case you are having side effects
  – Continue to follow closely with doctors even after completing course of planned treatment as disease can come back/relapse.
TO KEEP KIDNEYS HEALTHY IN LUPUS PATIENTS, THE KEY WORD IS TEAMWORK BETWEEN THE PATIENT, RHEUMATOLOGIST AND NEPHROLOGIST