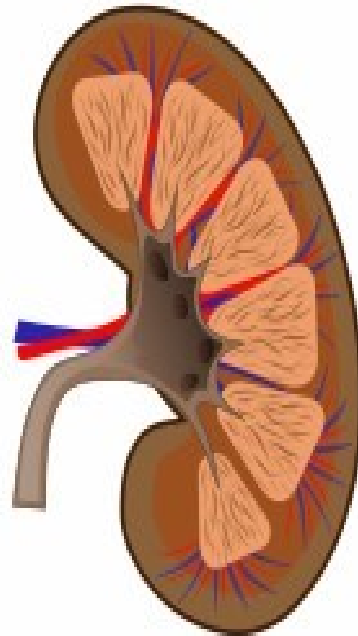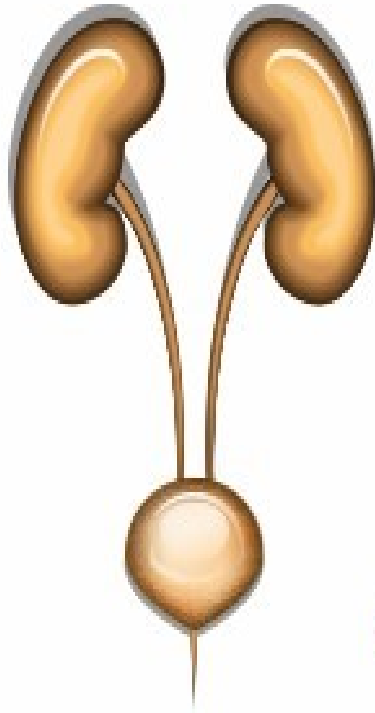**RAMA UNIVERSITY**

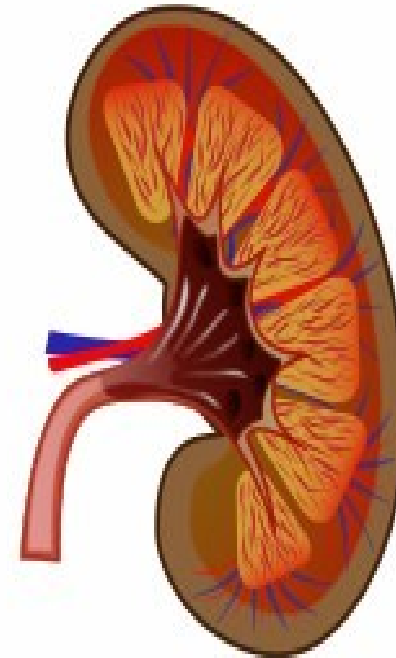www.ramauniversity.ac.in

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Glomerulonephritis

healthy kidney   glomerulonephritis

Definition

Acute Glomerulonephritis is an inflammation of the tiny filters in your kidneys (glomeruli). Glomeruli remove excess fluid, electrolytes and waste from your bloodstream and pass them into your urine. Glomerulonephritis can come on suddenly (acute) or gradually (chronic).

Causes

Many conditions can cause glomerulonephritis. Sometimes the disease runs in families and sometimes the cause is unknown. Conditions that can lead to inflammation of the kidneys' glomeruli include:

1. **Infections-** Glomerulonephritis may develop a week or two after recovery from a strep throat infection or, rarely, a skin infection (impetigo).

- **Bacterial endocarditic.** Bacteria occasionally can spread through your bloodstream and lodge in your heart, causing an infection of one or more of your heart valves.

- **Viral infections.** Viral infections, such as the human immunodeficiency virus (HIV), hepatitis B and hepatitis C, can trigger glomerulonephritis.

2. **Immune diseases**

- **Lupus.** A chronic inflammatory disease, lupus can affect many parts of your body, including your skin, joints, kidneys, blood cells, heart and lungs.

- **Goodpasture's syndrome.** A rare immunological lung disorder that can mimic pneumonia, Goodpasture's syndrome causes bleeding in your lungs as well as glomerulonephritis.

- **Ig A nephropathy.** Characterized by recurrent episodes of blood in the urine,

3. **Vasculitis**

- **Polyarteritis.** This form of vasculitis affects small and medium blood vessels in many parts of your body, such as your heart, kidneys and intestines.

- **Granulomatosis with polyangiitis-** it affects small and medium blood vessels in your lungs, upper airways and kidneys.

4. Conditions likely to cause scarring of the glomeruli

- **High blood pressure.** This can damage your kidneys and impair their ability to function normally.

- **Diabetic kidney disease (diabetic nephropathy).** This can affect anyone with diabetes, usually taking years to develop. Good control of blood sugar levels and blood pressure might prevent or slow kidney damage.

- **Focal segmental glomerulosclerosis-** this condition can result from another disease or occur for no known reason.

Symptoms

Signs and symptoms of glomerulonephritis depend on whether you have the acute or chronic form and the causes are:

- Glomerulonephritis signs and symptoms include:
- Pink or cola-colored urine from red blood cells in your urine (hematuria)
- Foamy urine due to excess protein (proteinuria)
- High blood pressure (hypertension)
- Fluid retention (edema) with swelling evident in your face, hands, feet and abdomen

Diagnosis

- History collection

- Physical examination

- Urine test

- Blood tests.

- Imaging tests. (CT scan, Ultrasound, X-ray)

- Kidney biopsy.

Medical Management

- Systemic antibiotic therapy is the usual treatment.

- It reduces contagious spread, treats deep infection, and prevents acute glomerulonephritis

- In nonbullous impetigo, benzathine penicillin or oral penicillin may be prescribed.

- Bullous impetigo is treated with a penicillinase-resistant penicillin (eg, cloxacillin, dicloxacillin).

- In penicillin-allergic patients, erythromycin is an effective alternative.

Prevention

- There may be no way to prevent most forms of glomerulonephritis. However, here are some steps that might be beneficial:

- Seek prompt treatment of a strep infection with a sore throat or impetigo.

- To prevent infections that can lead to some forms of glomerulonephritis, such as HIV and hepatitis, follow safe-sex guidelines and avoid intravenous drug use.

- Control high blood pressure, which lessens the likelihood of damage to your kidneys from hypertension.

- Control your blood sugar to help prevent diabetic nephropathy.

Complications

- Glomerulonephritis can damage your kidneys so that they lose their filtering ability. As a result, dangerous levels of fluid, electrolytes and waste build up in your body.

Possible complications of glomerulonephritis include:

- **Acute kidney failure.**

- **Chronic kidney disease.**

- **High blood pressure.**

- **Nephrotic syndrome.**

Thank You!