Glomerular diseases

**OBJECTIVES**

- Recognise four important syndromes (3 glomerular plus acute interstitial nephritis) and know some important causes
- Spot patients requiring urgent investigation and treatment, and know what these might be.
- Principles of management of:
  - Asymptomatic isolated haematuria
  - Asymptomatic isolated proteinuria
  - Nephrotic syndrome
  - Acute renal inflammation

5 causes of nephrotic syndrome

- Proteinuria >3.5g/d with hypoalbuminaemia: found mostly in non-inflammatory disease affecting podocyte

**Primary glomerular diseases**

- Non-inflammatory (non-proliferative) diseases
  - Minimal change nephropathy
  - FSGS (focal segmental glomerulosclerosis)
  - Membranous nephropathy

- Inflammatory diseases – generally when subacute and scarring

**Systemic diseases**

- Diabetes mellitus
- Amyloidosis

‘Nephritis’ (nephritic syndrome)

- Haematuria, proteinuria, hypertension, fluid retention - found in inflammatory or proliferative types of glomerulonephritis. Examples:

**Primary glomerular diseases**

- Post-streptococcal GN
- IgA nephropathy

**Systemic diseases**

- SLE (systemic lupus erythematosus)
- SVV (small vessel vasculitis)

Causes of crescentic nephritis

- Aggressive inflammatory GN (RPGN) in which fibrin stimulates proliferation of parietal epithelial cells. Hallmark – rapid loss renal function with haematuria + proteinuria, normal or large kidneys

- SVV
- (small vessel vasculitis)
- SLE (systemic lupus erythematosus)
- anti-GBM (Goodpasture’s) disease (rare)
- aggressive phase of other inflammatory nephritis (e.g. IgA, post-strep)

Another diagnosis should be in there just next to Diabetic nephropathy

For more detail, see www.edrep.org/resources – other useful things there also, but click on Glomerulonephritis. Something on Interstitial disease there too. Test yourself at www.edrep.org/clinic
## Interstitial diseases

### Acute interstitial nephritis

Most interstitial disease is

- **Allergic (immune)**
  
  Drug reaction most common
  
  Only occasionally autoimmune

- **Infective**
  
  Viruses, bacteria, mycobacteria
  
  Weil’s disease

- **Toxic (Noxious)**

### Chronic interstitial nephritis

- AIN where the cause continues
- In association with glomerulonephritis
- Allergic/immune
  
  Sarcoidosis
  
  Autoimmune (Sjogren’s)

- Infective

- Toxic
  
  Remember Ig light chains
  
  Heavy metals, CNIs, Li, tenofivir ...

- Development/congenital
  
  Reflux nephropathy and renal dysplasias

- Inherited
  
  Metabolic diseases (rare; eg Cystinosis etc)
  
  Causes of nephrocalcinosis

- Ischaemia/papillary necrosis
  
  Sickle cell nephropathy
  
  Analgesic nephropathy

Details of Chronic interstitial renal diseases are postgraduate level, but useful for everyone to look at the headings: