

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-inflamm disease affecting podocyte

Primary glomerular diseases

Non-inflammatory (non-proliferative) diseases

- Minimal change nephropathy
- FSGS (focal segmental glomerulo sclerosis)
- 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

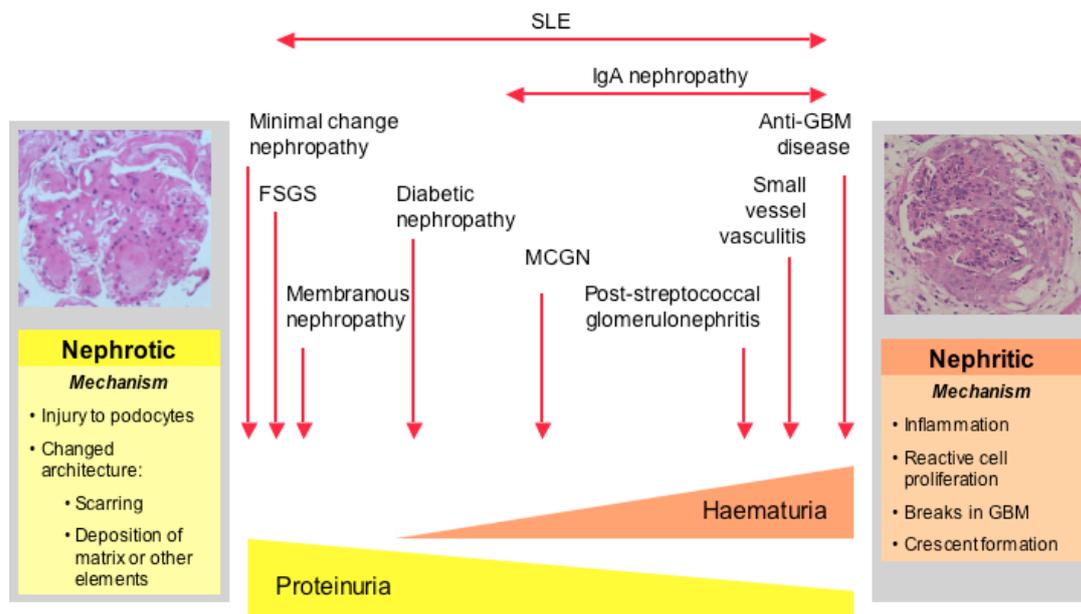
- SLE (systemic lupus erythematosus)
- SVV (small vessel vasculitis)

Causes of crescentic nephritis

Aggressive inflammatory GN (RPGN) in which fibrin in 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)

The spectrum of glomerular diseases



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)**

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

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