

MEMBRANOPROLIFERATIVE GLOMERULONEPHRITIS: (MPGN)

(Mesangiocapillary glomerulonephritis)

- Immune Mediated glomerular Injury.
- Thickening of glomerular basement membrane
- Leukocyte infiltration

TYPES $\begin{matrix} < I \\ < II \end{matrix}$

I: IMC in glomerulus.

Activation of Classical & Alternative complement pathway

II: Excess Activation of Alternative complement pathway.

MORPHOLOGY:

Light micro:

Enlarged & lobular glomeruli

Hypercellular glomeruli

Thickened GBM (tram track appearance)

Crust + + +

EM:

subendothelial electron dense deposits.

Double contour of GBM

Immunofluorescence

Granular deposit of IgG, C3, C1q, C4

leathery granular Appearance $\rightarrow$ Diabetic nephropathy

Type II

LM - Mesangial Proliferation.

Inflammation

Coronets:

EM - Electron dense homogeneous Ribbon like

Appearance of GBM

IM - Irregular granular deposits of Ig in GBM

COMMON GLOMERULONEPHRITIS:

① Primary:

- $\rightarrow$ MCD (Minimal-change disease)
- $\rightarrow$ FSGS
- $\rightarrow$ IgA glomerulonephropathy
- $\rightarrow$ IgA (nephropathy)
- $\rightarrow$ HPGN
- $\rightarrow$ Chronic glomerulonephritis.

② Systemic diseases.

- $\rightarrow$ SLE $\rightarrow$ Amyloidosis $\rightarrow$ Goodpasture syndrome
- $\rightarrow$ DM $\rightarrow$ BAC endocarditis

③ Hereditary

- $\rightarrow$ Alport syndrome
- $\rightarrow$ Fabry disease