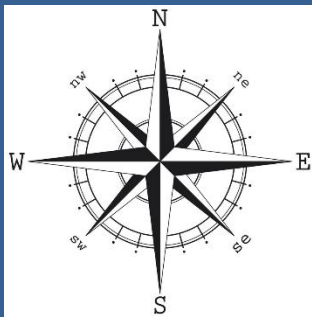


Field Guide to the Kidney



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THE RENAL BIOPSY

A. PREPARING FOR RENAL BIOPSY

1. Maintain platelets $>50K$, INR <1.5 ; Avoid antiplatelet agents and anticoagulants.
2. Control blood pressure to $<150/95$.
3. For patients with profound renal insufficiency consider giving DDAVP 0.3mcg/kg IV 15-30min prior to biopsy.

B. SYSTEMATIC APPROACH TO RENAL BIOPSY INTERPRETATION

1. Light Microscopy-

a. Overview:

- Determine the stain
- Describe the glomerular compartment
 - Are there alterations in matrix or basement membranes?
 - Is there hypercellularity? If so, in which compartment (mesangial, endocapillary, or extracapillary)?
 - Is there microangiopathy?
 - What is the distribution of the above lesions (diffuse/focal and segmental/global)?
- Describe the extraglomerular vascular compartment
- Describe the tubulointerstitial compartment

b. Determine the stain (Included examples reveal normal histology):

- Hematoxylin and eosin (H and E)-

Used for gross impression. Hematoxylin is violet and is basic (+), binding negatively charged DNA/RNA. Eosin is pink and acidic (-), binding to most positively charged cytoplasmic proteins (cytoplasm is pink, collagen is pale pink, and erythrocytes are cherry red)

