

Specialty Pathology Rotation - Objectives

Renal Pathology

- A. Be familiar with normal histologic features of the kidney and its four components: glomeruli, tubules, interstitium, and vasculature.
- B. Have a general understanding of the immunological basis and mechanisms of most glomerulonephritides.
- C. Attain competency in processing renal biopsies
 - 1. Be able to evaluate sample adequacy by using dissecting microscope.
 - 2. Know how to handle the fragile renal biopsy tissue and how to divide them for light microscopy (LM), direct immunofluorescence (DIF) and electron microscopy (EM) examinations.
- D. Know how to interpret common medical diseases of the kidney by using LM, DIF and EM, including:
 - 1. Glomerular diseases
 - a. Acute postinfectious glomerulonephritis (GN)
 - b. Rapidly progressive (crescentic) GN (including anti-GBM disease)
 - c. Minimal change disease
 - d. Focal segmental glomerulosclerosis (both primary and secondary causes)
 - e. IgA nephropathy
 - f. Membranoproliferative GN, Types I, II, and III
 - g. Lupus nephritis
 - 2. Tubulointerstitial diseases:
 - a. Acute tubular necrosis
 - b. Acute pyelonephritis
 - c. Acute drug-related interstitial nephritis
- E. Know how to interpret renal transplant biopsies.
 - 1. Acute cellular rejection
 - 2. Acute vascular rejection
 - 3. Acute cyclosporin A toxicity
 - 4. Chronic rejection/chronic cyclosporin A toxicity
 - 5. Transplant glomerulopathy.