

1. Nephrotic syndrome is defined by which of the following:
  - A. > 0.5 grams of proteinuria in 24 hours
  - B. > 1.5 grams of proteinuria in 24 hours
  - C. > 3.5 grams of proteinuria in 24 hours
  - D. > 5 grams of proteinuria in 24 hours
  - E. > 15 grams of proteinuria in 24 hours
2. This glomerular disease is associated with low serum complement levels, the presence of granular immune deposits within the glomeruli, and subepithelial hump-like electron-dense deposits. The best diagnosis is:
  - A. Poststreptococcal glomerulonephritis
  - B. Goodpasture syndrome
  - C. Membranous glomerulonephropathy
  - D. Focal segmental glomerulosclerosis
  - E. IgA nephropathy
3. A 35 y/o female with an ovarian mass and possible lupus presents with >3.5grams of protein in a 24 hour urine collection. Histology shown in the images (see Website Case #1) reveals increased glomerular capillary wall thickening. The Jones (silver) stain reveals irregular spikes that protrude from the glomerular-basement membrane (must look close at the image). Based on the clinical history and morphologic findings, the best diagnosis is:
  - A. Minimal Change Disease
  - B. Membranous Glomerulopathy
  - C. Focal Segmental Glomerulosclerosis
  - D. Membranoproliferative GN
  - E. Amyloidosis
4. A patient with an h/o multiple myeloma undergoes a renal biopsy. The histology as shown on the website (Case#2) shows interstitial and glomerular deposition of amorphous material. The PAS stain shows weak staining of this material present within the glomeruli. The Jones stain shows focally delicate spikes projecting from the outer aspect of the glomerular capillary wall (must look closely at the image). Based on these findings and the clinical history, the most likely diagnosis is:
  - A. AA Amyloidosis
  - B. AL Amyloidosis
  - C. Fibillary glomerulonephritis
  - D. Immunotactoid glomerulonephritis
  - E. Cryoglobulinemia

5. A 20 y/o patient with HIV and recent pregnancy loss presents with HTN, proteinuria, and red cell casts. Serum complement levels are low. Histology (Website Case #3) shows hypercellular glomeruli, and the EM shows podocyte effacement with electron dense subepithelial deposits. IF shows granular deposits of IgG, IgM, and C3 in the mesangium and basement membrane. Based on the findings correlated with the patient's history, the best diagnosis is:
  - A. Chronic GN
  - B. MPGN type II
  - C. MPGN type I
  - D. FSGS
  - E. Acute proliferative GN
  
6. A 9 y/o male presents with 3.0 grams of proteinuria in 24 hours with no red cell casts. A renal biopsy (Website Case #4) was performed and shows mesangial widening and proliferation. EM (not shown) showed electron dense deposits within the mesangium. IF was performed and the anti-IgA image is shown in this case. Based on the clinical presentation and the renal biopsy findings, the best diagnosis is:
  - A. Membranoproliferative GN
  - B. Lupus Nephritis
  - C. IGA nephropathy/Henoch-Schoenlein Purpura
  - D. Alport's syndrome
  - E. Benign Familial Hematuria
  
7. A 33 y/o male with a family h/o renal failure in male members presents with acute renal failure after renal transplant. Renal biopsy with histology and IF (Website Case #5) available for review shows focal crescentic glomerulonephritis with interstitial nephritis and mild focal increased mesangial cellularity. The IgG IF image is also available for review. Based on the clinical history and biopsy findings, the best diagnosis for this patient's underlying disease is:
  - A. Goodpasture's syndrome
  - B. Wegner's granulomatosis
  - C. Membranous GN
  - D. Alport's syndrome
  - E. Benign Familial Hematuria
  
8. Which of the following are associated with tubulo-reticular inclusions within epithelial cells on EM?
  - A. Lupus
  - B. Cryoglobulinemia
  - C. HIV associated nephropathy
  - D. Both A and C are correct
  - E. All of the above are correct

9. The following tumor is present in 25-50% of patients with tuberous sclerosis.
  - A. Oncocytoma
  - B. Renal hamartoma
  - C. Chromophobe RCC
  - D. Angiomyolipoma
  - E. Papillary Adenoma
  
10. Proteus bacteria are associated with which of the following types of renal stones?
  - A. Calcium oxalate
  - B. Magnesium, Ammonium, Phosphate
  - C. Uric acid
  - D. Cysteine
  - E. Unknown

**Notes for question set:<sup>1</sup>**

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<sup>1</sup> PathMD strives for the highest quality and accuracy. However, the *PathMD: Board Review Letter* is for review purposes and not meant for clinical decision making. It should not be used in place of review of primary reference texts and the current medical literature. If inaccuracies are identified, please notify us so that a correction may be published. (info@PathMD.com)