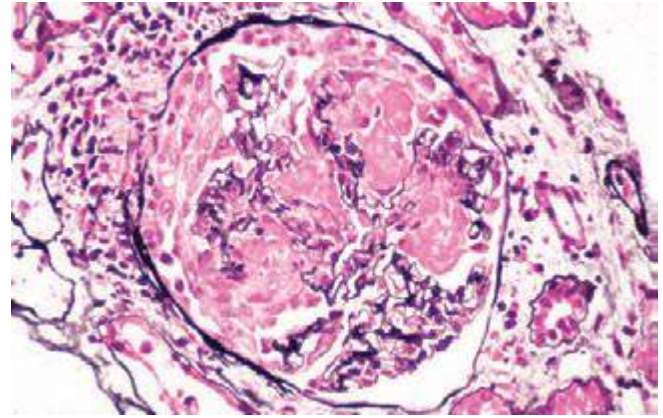
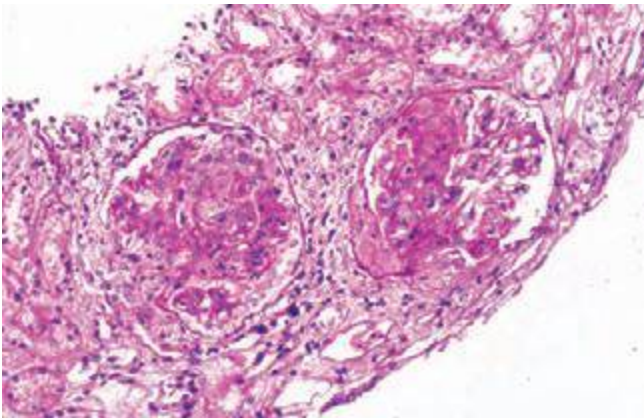


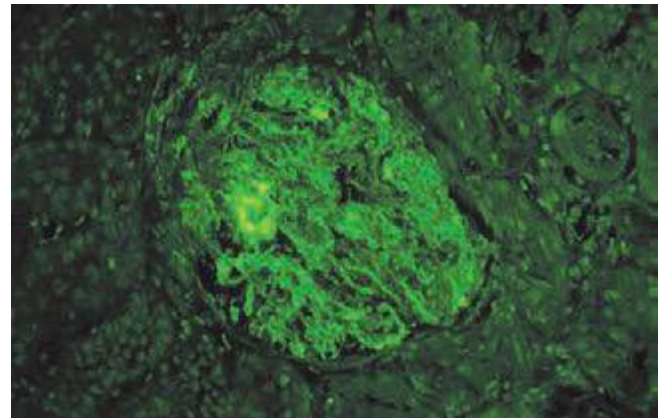
**FIGURE 62e-14** Mixed proliferative and membranous glomerulonephritis. This specimen shows pink subepithelial deposits with spike reaction, and the “tram-track” sign of reduplication of glomerular basement membrane, resulting from subendothelial deposits, as may be seen in mixed membranous and proliferative lupus nephritis (International Society of Nephrology [ISN]/Renal Pathology Society [RPS] class V and IV). (EGN/UPenn Collection.)



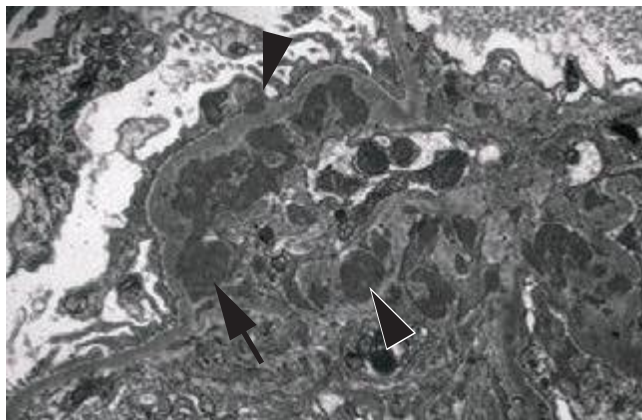
**FIGURE 62e-16** Granulomatosis with polyangiitis (Wegener’s). This pauci-immune necrotizing crescentic glomerulonephritis shows numerous breaks in the glomerular basement membrane with associated segmental fibrinoid necrosis and a crescent formed by proliferation of the parietal epithelium. Note that the uninvolved segment of the glomerulus (at ~5 o’clock) shows no evidence of proliferation or immune complexes. (ABF/Vanderbilt Collection.)



A



B



C

**FIGURE 62e-15** Lupus nephritis. Proliferative lupus nephritis, ISN/RPS class III (focal) or IV (diffuse), manifests as endocapillary proliferation, which may result in segmental necrosis due to deposits, particularly in the subendothelial area (A). By immunofluorescence, chunky irregular mesangial and capillary loop deposits are evident, with some of the peripheral loop deposits having a smooth, molded outer contour due to their subendothelial location. These deposits typically stain for all three immunoglobulins, IgG, IgA, IgM, and both C3 and C1q (B). By electron microscopy, subendothelial (arrow), mesangial (white rim arrowhead), and rare subepithelial (black arrowhead) dense immune complex deposits are evident, along with extensive foot process effacement (C). (ABF/Vanderbilt Collection.)