exhaustively for cancer. But the neoplastic nephropathy may be a sign of recurrent disease and may even be recognized by tumor antigens. MN also occurs in the context of many infectious diseases, including syphilis, malaria, schistosomiasis, and hepatitis B. Recently, 70% of patients with primary MN have been found to have circulating levels of an autoantibody to the phospholipase A2 receptor (anti-PLA2R) in the subepithelial region of the glomerular basement membrane.

Patients who have a nephrotic and nephritic sediment in childhood may have membranoproliferative glomerular nephritis (MPGN) with low C3 as a primary disease (C3 glomerulopathy or dense-deposit disease). The adult presenting with a nephrotic and nephritic picture should be considered to have an immune complex disorder unless proven otherwise. In amyloidosis there may be a simultaneous and severe tubular syndrome in addition to the albuminuria, consisting of nephrogenic diabetes insipidus and a hyperkalemic RTA. When NS is associated with Fanconi's syndrome (glycosuria, phosphaturia, uricosuria, and aminoaciduria), one must consider multiple myeloma in the adult.

HEMATURIA AND LOWER URINARY TRACT SYNDROMES

Because blood could enter the urinary tract from any structure, identifying the source is a necessary first step. As a rule, hematuria associated with flank pain or ureteral colic is more characteristic of a lower urinary tract source, such as a stone or an obstructing lesion. However, when flank pain without colic is noted, one has to consider swelling of the kidney and stretching of the renal capsule, as might be seen in acute urinary obstruction, kidney infection, interstitial nephritis, and, on occasion, acute glomerular nephritis. Heavy bleeding with clots is more characteristic of lower tract bleeding but could result from trauma to the kidney. In patients who have acute flank pain and hypertension, assuming the pain is due to a kidney stone may miss an occlusive vascular event from an embolus or in situ clot within the arterial blood supply. Patients who engage in strenuous exercise may develop hematuria that can be ruled out by