

systemic diseases. The finding of RBC casts in the urine is an indication for early renal biopsy ([Fig. 52-1](#)), as the pathologic pattern has important implications for diagnosis, prognosis, and treatment. Hematuria without RBC casts can also be an indication of glomerular disease, since RBC casts are highly specific but very insensitive for glomerulonephritis. The specificity of urine microscopy can be enhanced by examining urine with a phase contrast microscope capable of detecting dysmorphic red cells (“acanthocytes”) that are associated with glomerular disease. This evaluation is summarized in [Fig. 52-2](#). A detailed discussion of glomerulonephritis and diseases of the microvasculature is found in [Chap. 316](#).