



E-FIGURE 31-4 Crescentic glomerulonephritis is often a biopsy finding in patients with rapidly progressive glomerulonephritis.

E-TABLE 31-4 PATHOGENESIS OF ACUTE TUBULAR NECROSIS

INTRARENAL HEMODYNAMICS AND VASOCONSTRICTION	TUBULAR CELL INJURY AND NECROSIS	REPERFUSION INJURY FROM INFILTRATING LEUKOCYTES AND T CELLS	ROLE OF GROWTH FACTORS IN RENAL INJURY
<ul style="list-style-type: none"> Elevated endothelin Increased sympathetic discharge Reduced nitric oxide Loss of renal autoregulation Reduction in cortical and medullary blood flow Ischemic tubular injury with apoptosis and cell necrosis 	<ul style="list-style-type: none"> Disruption of actin cytoskeleton with loss of cell polarity Generation of reactive oxygen species Tubular shedding Backleak of filtrate Cast formation with tubular obstruction 	<ul style="list-style-type: none"> Recruitment of neutrophils and adhesion of cells Release of reactive oxygen species, proteases, elastases, other enzymes Infiltration of T lymphocytes → unknown mechanism of injury Tubular cell death Interstitial inflammatory infiltrate with fibrosis 	<ul style="list-style-type: none"> Growth factors participate in regenerative process after ischemic injury Growth factors may also promote renal injury Augmentation of tubulointerstitial injury and fibrosis