

be diagnosed without proteinuria in the presence of symptoms or laboratory abnormalities raising concern for end-organ damage. Specific clinical features qualify as evidence of severe disease, including severe hypertension (blood pressure $\geq 160/110$ mmHg), new-onset symptoms (headache not responsive to medications, visual changes, unremitting severe epigastric pain, or pulmonary edema), or laboratory abnormalities signifying thrombocytopenia (platelets $< 100 \times 10^9/L$), renal insufficiency (creatinine > 1.1 mg/dL), or liver impairment (elevation of transaminases to twice the normal concentration). The *HELLP syndrome* (hemolysis, elevated liver enzymes, low platelets) is a special subtype of preeclampsia with severe features and is a major cause of morbidity and mortality. Coagulopathy, cerebrovascular accidents (CVAs), hepatic capsule rupture, and placental abruption are additional end-organ complications of preeclampsia.

The precise pathophysiology of preeclampsia remains unknown, but chronic uteroplacental ischemia, an exaggerated maternal inflammatory response, and/or imbalance of angiogenic factors likely contribute to the clinical syndrome. Excessive placental production of antagonists to both vascular endothelial growth factor (VEGF) and transforming growth factor β (TGF- β) and subsequent endothelial injury may underlie the pathophysiology in more severe presentations of the disease. Abnormalities of cerebral circulatory autoregulation explain some of the neurologic manifestations of the disease and can increase the risk of stroke at even modestly elevated blood pressures. In the absence of treatment, 1 in 200 cases of preeclampsia may progress to *eclampsia*—new-onset generalized tonic-clonic seizures in a patient with preeclampsia. Low-dose aspirin initiated between 12 and 14 weeks of gestation reduces the risk in women at high risk of developing preeclampsia.

■ GESTATIONAL HYPERTENSION

The development of elevated blood pressure after 20 weeks of pregnancy in the absence of preexisting chronic hypertension or proteinuria is referred to as *gestational hypertension*. Gestational hypertension with severe features of the disease is best classified as preeclampsia, whereas gestational hypertension in the absence of