CLINICAL CORRELATION: CEREBROVASCULAR DISEASE

- Acute Ischemic Stroke (AIS) and Transient Ischemic Attack (TIA)
  - Introduction & Epidemiology
  - Mechanisms of ischemia and stroke classification
  - Lacunar infarction syndromes
  - Amaurosis fugax “monocular blindness”
  - Collateral blood flow
  - Diagnosis and treatment of AIS/TIA
- Management of carotid artery disease
- Antithrombotic options for AIS
- Management of elevated intracranial pressure (ICP) due to stroke
- Signs of intracranial hemorrhage (ICH)
- Causes of ICH
- Subarachnoid hemorrhage

KEY CONCEPTS AND LEARNING OBJECTIVES

1. Recognize that the basic mechanisms of ischemia involve embolic occlusions of large arteries or branches from proximal arterial or cardiac sources, or thrombotic occlusions of small lenticulostriate arteries or large arteries at typical bifurcation points.
2. Define “transient ischemic attack (TIA),” “collateral blood flow,” “lacunar infarction,” and “amaurosis fugax (monocular blindness).”
3. Explain how you would diagnose and treat a patient with a TIA or ischemic infarction.
4. Explain which degree of cervical internal carotid stenosis merits surgical or interventional treatment in symptomatic patients with TIAs or mild ischemic deficits versus asymptomatic patients.
5. Recognize that future strokes may be prevented with warfarin in patients with atrial fibrillation, and most other stroke-prone patients are treated with antiplatelet drugs.
6. List the treatments used for increased intracranial pressure related to ischemic infarction or hemorrhage.
7. Recognize that severe headache, impairment or loss of consciousness, and a focal neurological deficit strongly suggest a cerebral hemorrhage.
8. List the causes of cerebral hemorrhage.
9. Recognize that deep cerebral hemorrhages in the striatum or thalamus are most likely from hypertension.
10. Explain how you would diagnose and treat a patient with a nontraumatic subarachnoid hemorrhage.