Unsteady gait (older child)

Papilledema (older child)

Retinal hemorrhages

Associated Signs

Scalp trauma

Other injuries (e.g., to extremities)

CN, Cranial nerve; *ICP,* intracranial pressure.

Subdural Hemorrhage

A subdural hemorrhage is bleeding between the dura and the arachnoid membrane, usually as a result of rupture of cortical veins that bridge the subdural space and hemorrhage from the cortex of the brain (see Fig. 27-6, *B*). Subdural hematomas are more common than epidural hematomas, occurring most often in infancy, frequently as a result of birth trauma, falls, assaults, or violent shaking. Unlike epidural hemorrhage, which develops inwardly against the less resistant brain tissue, subdural hemorrhage tends to develop more slowly and spreads thinly and widely, crossing cranial sutures, until it is limited by the dural barriers—the falx and tentorium. The small subdural space and the dura, which is firmly attached to the skull in this area, are highly vulnerable to increased ICP.

Presenting signs include irritability, vomiting, increased head circumference, bulging anterior fontanels in infants, lethargy, coma, or seizures. In infants with open fontanels, large amounts of intracranial blood may accumulate, causing hemorrhagic shock or fever before there are any changes in the neurologic examination. Hemiparesis, hemiplegia, and unequal pupils are signs of brainstem compression and increased ICP. A child with a GCS of 12 or less requires emergency consultation with the neurosurgeon.

Nursing Alert

Children with a subdural hematoma and retinal hemorrhages