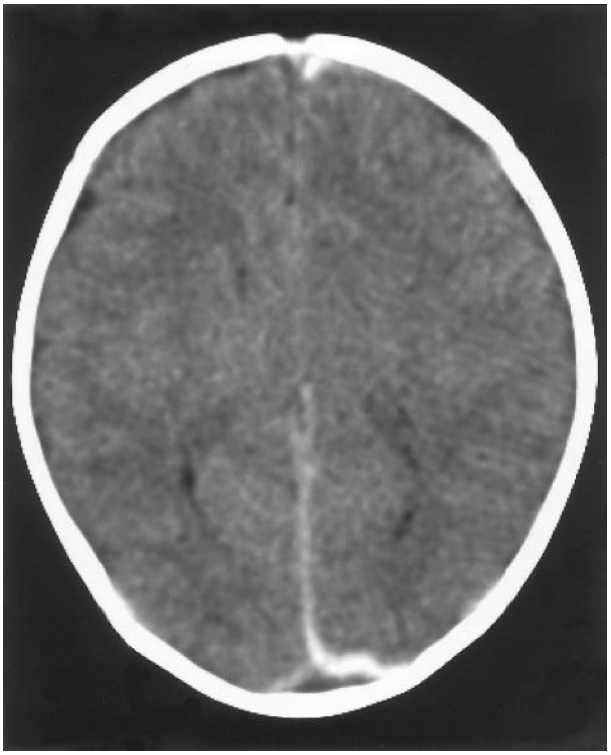

Figure 22-4 Acute subdural hemorrhage in the posterior interhemispheric fissure in an abused infant.

in severe cases of trauma, there may be no bruising to the abdominal wall. The lack of external trauma, along with the usual inaccurate history, can cause delay in diagnosis. A careful evaluation often reveals additional injuries. Abdominal trauma is the second leading cause of mortality from physical abuse, although the prognosis is generally good for children who survive the acute assault.

Abusive head trauma is the leading cause of mortality and morbidity from physical abuse. Most victims are young; infants predominate. Shaking and blunt impact trauma cause injuries. The perpetrators are most commonly fathers and boyfriends, and the trauma typically is precipitated by the perpetrator's intolerance to a crying, fussy infant. Victims present with neurologic symptoms ranging from lethargy and irritability to seizures, apnea, and coma. Unsuspecting physicians misdiagnose approximately one third of infants, and of these, more than 25% are reinjured before diagnosis. A common finding on presentation is subdural hemorrhage, often associated with progressive cerebral edema (Fig. 22-4). Hypoxic-ischemic injury is a significant contributor to the pathophysiology of the brain injury. Associated findings include retinal hemorrhages (seen in many, but not all, victims) and skeletal trauma, including rib and classic metaphyseal fractures. At the time of diagnosis, many head-injured infants have evidence of previous injury. Survivors are at high risk for permanent neurologic sequelae.

The extensive **differential diagnosis** of physical abuse depends on the type of injury (Table 22-2). For children who present with pathognomonic injuries to multiple organ systems, an exhaustive search for medical diagnoses is unwarranted. Children with unusual medical diseases have been incorrectly diagnosed as victims of abuse, emphasizing the need for careful, objective assessments of all children. All infants and young toddlers who present with suspicious

Table 22-2 Differential Diagnosis of Physical Abuse*

BRUISES
Accidental injury (common)
Dermatologic disorders
Mongolian spots
Erythema multiforme
Phytophotodermatitis
Hematologic disorders
Idiopathic thrombocytopenic purpura
Leukemia
Hemophilia
Vitamin K deficiency
Disseminated intravascular coagulopathy
Cultural practices
Cao gio (coining)
Quat sha (spoon rubbing)
Infection
Sepsis
Purpura fulminans (meningococcemia)
Genetic diseases
Ehlers-Danlos syndrome
Familial dysautonomia (with congenital indifference to pain)
Vasculitis
Henoch-Schönlein purpura
BURNS
Accidental burns (common)
Infection
Staphylococcal scalded skin syndrome
Impetigo
Dermatologic
Phytophotodermatitis
Stevens-Johnson syndrome
Fixed drug eruption
Epidermolysis bullosa
Severe diaper dermatitis, including Ex-Lax ingestion
Cultural practices
Cupping
Moxibustion
FRACTURES
Accidental injury
Birth trauma
Metabolic bone disease
Osteogenesis imperfecta
Copper deficiency
Rickets
Infection
Congenital syphilis
Osteomyelitis