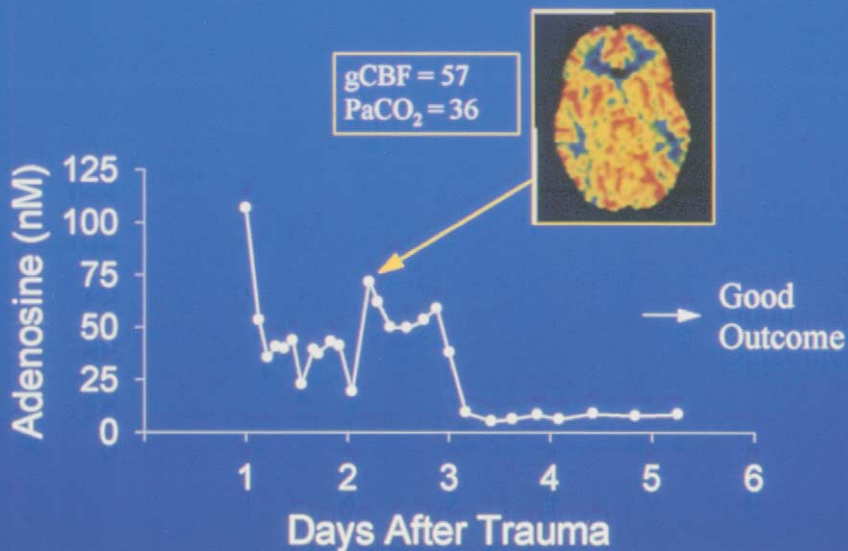


Color Plates

Plate 1. (A) CBF in a 15-year-old child in a motor vehicle accident (MVA) measured by stable xenon CT. Normal global CBF (gCBF) concurrent with increased cerebrospinal fluid (CSF) adenosine levels was observed. This may reflect an appropriate cerebrovascular response to adenosine release early after injury. (B) CBF in a 2-month-old child with SBS measure by stable xenon CT. Marked early hypoperfusion with a low gCBF was noted concurrent with surprisingly low CSF adenosine levels. Subsequent increases in both gCBF and CSF adenosine levels were seen. This pattern may reflect overwhelming injury with an initial failure of the endogenous adenosine response. The late rise may reflect pathologic vasodilation, CBF dysregulation, or marked CBF demands coupled to increased anaerobic metabolism. (See also Fig. 3 on page 172 in article by Ruppel et al.)

A

Patient A: 15 y.o. S/P MVA



B

Patient B: 2 m.o. Shaken Baby

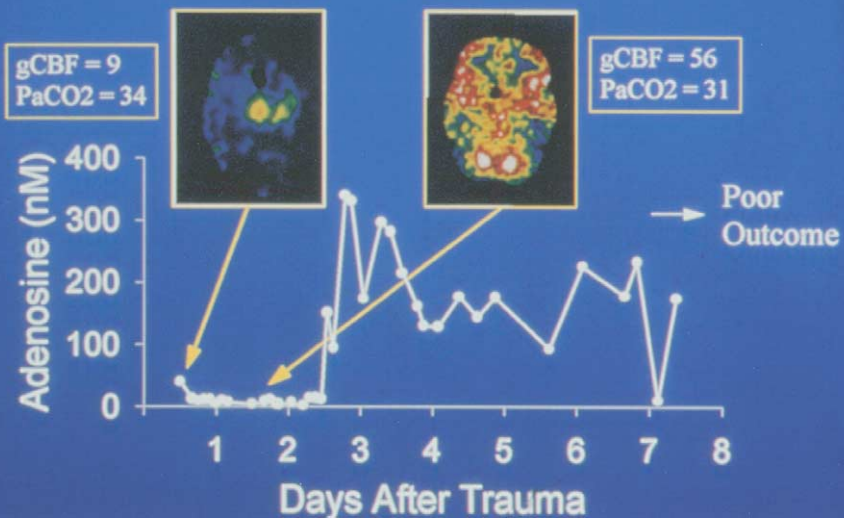


Plate 1.

Plate 2. CBF as measured by stable xenon CT in a shaken baby with refractory intracranial hypertension despite maximal medical management including barbiturate coma. (*Top row*) Normal or increased CBF at a cerebral perfusion pressure (CPP) of approximately 40 mm Hg. (*Bottom row*) Increasing blood pressure by norepinephrine administration (despite CPP within the autoregulation range) resulted in a concomitant increase in CBF and intracranial pressure, demonstrating a loss of autoregulation. (See also Fig. 4 on page 173 in article by Ruppel et al.)

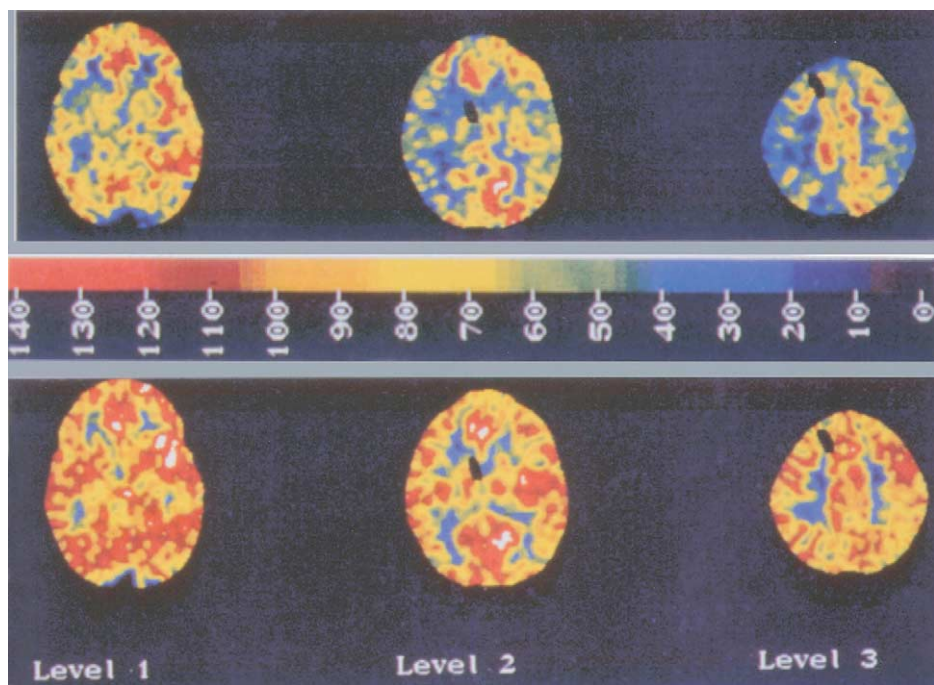


Plate 2.