Blast-related traumatic brain injury: what is known

Traumatic brain injury (TBI) due to blast exposure is becoming increasingly prevalent in soldiers returning from war and some consider TBI to be the signature wound of the Iraq and Afghanistan conflicts [1]. Common causes are exposure to explosions of improvised explosive devices (IEDs), rocket-propelled grenades, and landmines. A study by Hoge et al found that of 2525 soldiers, 4.9% reported injuries with loss of consciousness and an additional 10.3% reported injuries with altered mental status [2]. Despite the prevalence of TBI, little is known on the epidemiology of TBI.

How are blast-induced traumatic brain injuries classified? How does blast-induced traumatic brain injury (TBI) differ from other types of traumatic brain injuries? How can secondary insults to TBIs be avoided? Traumatic brain injury has classically been categorized based on severity of symptoms: mild, moderate, and severe. Patients with mild TBI usually have a Glasgow Coma Scale at time of medical evaluation (GCS, Table 268-2) of 14 to 15 and experience brief if any loss of consciousness (LOC). This is known as the “postconcussive” syndrome. Patients with moderate TBI on initial medical evaluation will have a GCS of 9 to 13 and usually experience a longer period of unconsciousness. Table 268-2 Glasgow Coma Scale.