

Causes and Consequences of Mild Traumatic Brain Injury

Marty Read*

Department of Neurosurgery, University of Illinois Chicago, Chicago, USA

*Corresponding author: Marty Read, Department of Neurosurgery, University of Illinois Chicago, Chicago, USA, E-mail: read.marty@mr.edu

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Description

Mild traumatic brain injury (mTBI) has been defined by multiple different organized bodies. This reflects the common nature of mTBI and range of medical help requested to treat cases with concussion. The major causes to mTBI include motor vehicle accidents, falls, and assaults and these head injuries can be attributed to sports, therefore, a large proportion of cases are at young age.

Following a head injury, there is a quick, transient period of excitatory exercise lasting for a couple of hours. This is followed by a metabolic depression lasting up to 1 month, and this has been demonstrated with positron emission tomography (PET) imaging studies. Besides metabolic dysfunction, there is, unfortunately, an element of structural damage with mTBI. This would fall on the spectrum of diffuse axonal injury, during which axonal shearing occurs on a microscopic position. With magnetic resonance imaging (MRI) scans, these diffuse axonal injuries can be detected.

In the case of basilar cranium fractures, cases should be assessed for signs of spinal fluid leak. These may manifest as rhinorrhea or Otorrhea, spinal fluid leaking from the nose or ear, respectively. However, these cases should be directed to the emergency room, as the threat of meningitis is high, If a cerebrospinal fluid (CSF) leak is noted. After initial assessment and stabilization, whether in the field, clinic, or hospital a neuropsychiatric assessment should be performed.

The first diagnostic decision in mTBI cases are going to be whether to get a head CT without discrepancy. If the original CT or test raises doubt for cranium base fracture a CT dedicated to the temporal bone should be attained together with ENT consultation. Cases with temporal bone fractures need a devoted otology test and delayed audiogram.

Fortunately, mTBI cases don't generally need any type of intervention. Certain types of hematomas can be seen in mTBI but are more common with moderate and severe injury. Generally in cases with concussion, small subdural or epidural hematomas are observed and do not need surgery, though the case should experience repeat CT scan to make sure no progression occurs. The Use of ICP monitor or external ventricular drain isn't used in concussion. These devices are generally reserved for severe TBI.

Generally, the prognostic for cases with mTBI is excellent, but there are certain issues cases should be apprehensive of. Neurologic deterioration from a delayed hemorrhage is possible after concussion, but rare. In young cases, after they're observed for one night. The threat of delayed hemorrhage is exceptionally low. In aged cases, mTBI can lead to formation of a chronic subdural hematoma, and in those cases with persistent headache or other progressive symptoms. CT imaging should be attained. Parents of school- age children should be referred to a neurologist or primary care physician as students can develop headaches and attention and memory difficulties. These are fortunately self- limited, and a full recovery should be awaited.

After mTBI, cases can generally be covered for smaller than 24 hours. Delayed hemorrhage may develop during a patient neurologically intact after mTBI. Skull fractures with CSF leak can result a disastrous development of meningitis if not recognized. The advance practice health professional will definitely play a part in estimating the mTBI case in the field, the emergency room, later in clinic. The capacity to triage these cases is going to be immensely precious, as they actually seldom require neurosurgical intervention. Repeated mTBI must also be recognized as a disease that may lead to progressive long- term loss of neurologic function.