

Post-Concussive Syndrome: Is it Real?

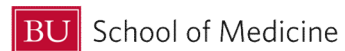
James A.D. Otis, M.D.

Director, Pain and Headache Management Group

Department of Neurology BMC



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DEFINITION

- *Post-concussion syndrome* is the persistence of a combination of physical, cognitive, emotional, and sleep symptoms beyond the usual recovery period after a concussion.
- WHO Definition and ICD-10 Definitions
 - a syndrome that occurs following head trauma (usually sufficiently severe to result in loss of consciousness) and includes a number of disparate symptoms such as headache, dizziness, fatigue, irritability, difficulty in concentration and performing mental tasks, impairment of memory, insomnia, and reduced tolerance to stress, emotional excitement, or alcohol.¹

1. WHO (World Health Organization) International Statistical Classification of Diseases and Related Health Problems. 2010. [October 3, 2013]. (10th Revision. [Online version.])

PROBLEMS WITH DEFINITION

- Does not define the duration of the post-acute period.
 - Operationally, this seems to hover around 3 months
- Symptoms are nonspecific
 - Consider Concurrent PTSD
- Does not take into account presence of symptoms pre-injury

WHAT DO THE STUDIES SHOW?

- Only one prospective study with good baseline
 - (McCrea et al 2013)
- This study was in sports related injury in youths, not adults
 - PCS presence and duration was related to LOC, presence of HA, and initial symptoms of pain and memory issues
- Similar findings in ER prospective study of adults and children >13
 - (Eisenberg et al 2013)
- A very recent cohort study comparing mTBI vs non TBI soldiers found that 47% vs 25% met criteria for PCS
 - (Schwab et al 2017)

MARKERS REPORTED AS ABNORMAL

- Neuropsychological testing
- fMRI
- Neurological examination
- MRI tractography

ARE THESE UNIQUE TO TBI?

- Absolutely not

POSSIBLE EXPLANATIONS

- Presence of pre morbid pathology
 - Supported by multiple studies
- Presence of pre morbid PTSD
- Concurrent development of PTSD
- Perhaps something we don't know yet

REFERENCES

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