

Mental Health Sequelae of Post Concussive Syndrome

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October 2019

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Objectives

Identifying emotional, behavioral symptoms and neurological symptoms associated with post-concussion syndrome and their potential impact on daily functioning and personal performance.

Have an understanding of the basic management recommendations for post concussive psychiatric symptoms

Key Points to Understanding Concussions

80-90 % of young athletes who sustain concussions during actively playing a sport will fully recover and be able to return to full activity within 2 weeks.

10-20 % of individuals who sustain concussions can experience a prolonged recovery of post-concussive effects which can last weeks, months, or even years after sustaining the traumatic brain injury.

These long-lasting effects can involve a constellation of cognitive, emotional, and physiological symptoms

Post Concussive Syndrome

- ▶ ICD 10 Definition of Post Concussive Syndrome
- ▶ 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. ([WHO, 2010](#), F07.2)

Predictors of a Prolonged Recovery Post Concussion

- ▶ History of previous concussions
- ▶ Individual and family history of psychiatric illness
- ▶ Adolescent age, in comparison to younger children
- ▶ History of migraine headaches
- ▶ Headache symptoms
- ▶ Sleep Disturbance

Emotional Sequelae of Concussions

- ▶ Mood and Anxiety Disorders
 - ▶ Anxiety symptoms- present in 11-70 % of individuals with Traumatic Brain Injury
 - ▶ GAD, Panic Disorder, Phobias
 - ▶ Management - Antidepressants, opiate antagonists, behavioral therapy
 - ▶ No benzos or atypical antipsychotics
 - ▶ Depression - present in 25 % of individuals who sustain Traumatic Brain Injury
 - ▶ Associated with Fatigue, Irritability, Anhedonia, Suicidal Ideation, Insomnia
 - ▶ Management - Antidepressants, Psychostimulants

Behavioral Sequelae of Concussions



- ▶ Impulse Control and Behavioral Dyscontrol Disorders:
 - ▶ Impulsivity, Apathy, Aggression, Hyperphagia, Hyperactivity, Pica
 - ▶ Management- psychostimulants, anticonvulsants, opioid antagonists

Cognitive Symptoms of Concussions

- ▶ Impaired Memory
- ▶ Decreased Attention
- ▶ Decreased Concentration,
- ▶ Executive Functioning Deficits

Somatic Symptoms of Post Concussive Syndrome

- ▶ Headache
- ▶ Dizziness
- ▶ Vertigo
- ▶ Diplopia
- ▶ Insomnia
- ▶ Tinnitus
- ▶ Light sensitivity
- ▶ Noise sensitivity
- ▶ Fatigue

Management of Post Concussive Symptoms

- ▶ **Removal from Play-** players who kept playing after sustaining a concussion were 9 times more likely to have a prolonged course of recovery.
- ▶ **Collaborative, Multidisciplinary Care** involving cognitive behavioral therapist, psychiatrist, pediatrician, care coordinator, and athletic trainer.

Management of Post Concussive Symptoms

- ▶ **Treatment of co-occurring psychiatric conditions.**
 - ▶ Stimulants for attention and concentration deficits
 - ▶ Antidepressants for depression and anxiety symptoms
 - ▶ Anticonvulsants and opioid antagonists for symptoms of impulsivity, agitation, and aggression.

References

- ▶ Neuropsychiatric Sequelae of Traumatic Brain Injury, Rao et al. Psychosomatics; March-April 2000, pgs. 95-103
- ▶ Treatment and Management of Prolonged Symptoms and Post Concussive Syndrome; Committee on Sports related Concussions in Youth, Board on Children, Youth, and Families, Institute of Medicine, National Research Council, Graham R, Rivera FP, Ford MA, et al., National Academies Press; 2014, Feb 4.
- ▶ Psychiatric Sequelae of Concussions, David Brent and Jeffrey Max, Current Psychiatry, Child and Adolescent Disorders, 17 November 2017.