Case Report of a seventeen-year-old post-concussive male receiving chiropractic functional neurology care

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Introduction:

Sports related concussions among high school athletes are increasing, with mild traumatic brain injury becoming one of the leading reasons for childhood hospital admissions.[1-2] Approximately 10% of young athletes who receive a concussion will experience protracted recovery of symptoms.[3] Symptoms that commonly remain include fatigue, impaired memory, decreased reaction time, headache, depression, anxiety, dizziness, sensitivity to light, and slowed information processing. [2-4] This host of symptoms is commonly referred to as post-concussive syndrome. 2-4

Emerging therapies in the care and rehabilitation of post-concussive syndrome (PCS) include vestibular, oculomotor, and prescriptive physical activity; however, to date, there is little evidence to support any therapeutic intervention that provides rapid recovery of chronic PCS. [5] The purpose of this study is to report on the recovery of a 17-year-old male experiencing chronic PCS (6 months) who received chiropractic adjustments as a primer for chiropractic functional neurology treatment.

Methods:

A 17-year-old male presented to the Life University Functional Neurology Center for post-concussive syndrome subsequent to a Grade 3 concussion 6-months prior. The patient was experiencing lack of focus, headaches, change in personality, balance difficulty, fatigue, excessive sweating, and difficulty in school. Clinical exam revealed inability to maintain gaze, intermittent dystonia, lack of accommodation, and breakdown in eye and motor coordination. Cognitive assessment (Cambridge Cognition, Cantab Research Suite) demonstrated diminished ability in reaction time, attention switching, executive function, spatial working memory, and visual learning.

Approval from the Life University IRB was received, and patient consent was obtained prior to onset of care.

Foundational neurologic priming was provided through specific chiropractic adjustments followed by chiropractic functional neurology care, including whole body rotation.

Results:

Patient reported improvement across all diminished domains following one-week of care. Personality and affect returned to pre-concussion state, ability to focus and succeed in school returned, fatigue resolved, accommodation returned, eye and motor coordination

improved, and cognitive assessment scores transitioned from considerably below normal to well above healthy age matched individuals.

Conclusion:

Following chiropractic and functional neurology care the patient experienced rapid recovery of symptoms associated with post-concussive syndrome. Further, symptom resolution was observed clinically and through assessment with gold standard computerized cognitive assessment technology.

References:

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