

The Ricky Williams Concussion Project

Sponsored by: The Upledger Foundation and the Ricky Williams Foundation

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Medical Complexity: New Treatment Approach for Special Population

Purpose: To determine if specific manual therapy techniques would provide an intervention with positive changes to enhance recovery or diminish long-term sequelae for post professional athletes with a history of concussions.

Our Question: Based on a recent study on the practice parameters of sports concussions, published in Neurology, June 11, 2013 by Christopher Giza, MD, et al – What interventions enhance recovery, reduce the risk of recurrent concussion or diminish long-term sequelae?

Objective: Many victims of concussion injuries report signs and symptoms years after the incident(s). The object of this study was to demonstrate if the intervention of specific manual therapy techniques aimed at the structures responsible for the body's principal imbalances would make a difference in the long-term sequelae of post concussive symptomatology.

Study Design: A pilot study (case series) with 5 post professional male football players that were tested with Gold Standard of tests immediately before, after, 4 weeks and 3 months post treatment. The tests consisted of a medical exam, the Impact Test (testing neurocognitive deficiencies), Beck Depression Inventory II (tests symptoms associated with depression), Numeric Pain Intensity Scale (number given by participant for overall pain), SF 36 QoL (Quality of Life), HIT 6 (Headache Intensity Test), Dizziness Handicap Inventory, Dynamic Gait Index (measures the capacity to adapt gait to complex tasks), and Standard Orthopedic ROM, Strength, Vestibular and Balance tests. Each athlete was evaluated by a medical doctor and received the diagnosis of post concussion syndrome. The intervention consisted of manual therapy techniques given by certified, licensed and experienced therapists at the Upledger Institute in West Palm Beach, Florida from July 14 – 18, 2014. This study was designed as an intensive therapy program where each participant received manual techniques twice a day for 5 days. The manual therapy consisted of craniosacral, visceral and neuromeningeal techniques designed for the deeper connecting fascias of the body.

(Place another picture here of us testing the guys during the pre or post testing period)

Best Practice Approach: This study is a preliminary study to see if it warrants further research. The standard measurement in this study is that it was patient centered in that no two concussions are the

same, even for a single athlete. (McCroory,P et al, Consensus statement: The 3rd International Conference on Concussion in Sport, British Journal of Sports Medicine, 2009, 43;i76-184)

Outcomes:

<u>Test</u>	<u>Average Pre Test</u>	<u>Average Post Test</u>	<u>Average 3 month</u>
Numeric Pain Scale	6.6/10	2.4/10	3.8/10
Dynamic Gait Index	17.8/24	18.4/24	18.6/24
SF 36	21.8/36	26/36	28.8/36
HIT 6	55	51.8	52
Dizziness Inventory	19.4	20.4	20
Beck II	63	58.8	54.2
Impact Cognitive Efficiency	0.106	0.144	NT
Cervicogenic Pain	5.8/10	1.8/10	2.2/10
Cervical ROM Flexion	18`	38`	48`
TUG	8.11 secs	7.13 secs	7.5 secs
Hours of sleep	2	3.7	4.6

Conclusions: The ages of the men ranged from early 30's to early 50's. The number of concussions received varied for each individual. The chief complaints for the participants were anxiety, depression, sleep problems, fatigue, difficulty with memory, learning, reading, decision making and cervical/head pain. The minor complaints came in the categories of balance, dizziness, digestive or elimination problems. The results clearly show improvement with less overall pain, an increase in Quality of Life issues, a significant difference for symptoms associated with depression and another set of significant differences for decreased cervicogenic pain, increased cervical ROM and an increase in the average number of hours able to sleep per night.

Limitations: The major limitation of this analysis was the small patient base and inability to have controls.

Future Research: This analysis was a preliminary study to evaluate if manual therapy as an intervention for post concussive retired professional football players warrants further research. The results from this study provide significant changes to support the validity of future research. Our goal would be a larger patient population with controls and perhaps the support of a larger Brain Trust Program.