

CranioSacral Therapy and Visceral Manipulation: A New Treatment Intervention for Concussion Recovery

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Published Online: 1 Aug 2017 <https://doi.org/10.1089/acu.2017.1222>

Abstract

Background: Military service members and veterans face health issues related to traumatic brain injury (TBI), especially during combat, use of heavy equipment, and exposures to environmental hazards and explosives. There were 400,000 TBIs reported in deployed U.S. troops in 2012. Athletes are also subject to TBI. Studies have indicated that some manual therapies could be helpful for treating patients who have post-concussive syndrome.

Objective: This case series report describes the effects of CranioSacral Therapy (CST), Visceral Manipulation (VM), and Neural Manipulation (NM) modalities for treating patients who have post-concussion syndrome. The goal of this study was to evaluate these effects on immobility, pain intensity, quality of life, sleep disorders, and cognition in these patients.

Materials and Methods: This single-blinded case series was conducted at the Upledger Institute, in West Palm Beach, FL. The patients were 11 male retired professional football players from the National Football League and the Canadian Football League who had been medically diagnosed with post-concussion syndrome. Each participant received a morning and afternoon 2-hour session of these three specific manual therapies, which were capable of accessing and addressing the structural, vascular, and neurologic tissues of the cranium and brain—as well addressing far-reaching ramifications throughout the body following trauma. The main outcome measures were scores on the: Impact Neurocognitive Test; Dynavision™ Test; Short Form–36 Quality of Life Survey, Headache Impact Test, Dizziness Handicap Inventory; a numeric pain rating scale; orthopedic range of motion tests (ROM); and vestibular testing. Hours of sleep were also checked. These outcome measures were registered at baseline, after treatment, and after a 3-month follow up.

Results: Statistically significant differences were seen with a decrease in overall pain rating scale scores ($P = 0.0448$), and cervicogenic pain levels decreased ($P = 0.0486$). There were statistically significant increases in Dynavision Average Reaction Time ($P = 0.0332$), Memory Test ($P = 0.0156$) scores, and cervical ROM scores ($P = 0.0377$). Hours of sleep averaged 2 hours on the first day of treatment and increased to 4.0 hours at the end of treatment and were continuing to increase, as noted at a 3-month evaluation.

Conclusions: Ten sessions of specific CST/VM/NM therapy resulted in statistically greater improvements in pain intensity, ROM, memory, cognition, and sleep in concussed patients.