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## Introduction

This study examines the role of chiropractic applied clinical neuroscience in the management of a 18 year old collegiate cheerleader presenting with head pain for five weeks after sport injury. While spotting during a routine, she was hit in the head.

The purpose of this case study is to investigate the role of chiropractic applied clinical neuroscience and management of concussion-like symptoms for patients that are offered limited help with current medical treatment options.

## Background:

An 18-year-old female presented to the NeuroLife Institute with concussion-like symptoms following a head injury 5-weeks prior. The patient's symptoms included headache, neck pain, difficulty concentrating, personality changes, confusion, anxiety, irritability, memory issues, and difficulty in school. She also presented with an intention tremor and an increased resting heart rate.

## Methods:

The patient received seven chiropractic applied clinical neuroscience treatments over a two week period. Interventions included spinal chiropractic adjustments, photobiomodulation, and oculomotor exercises. A customized home exercise program was prescribed and followed daily.

## Results:

At the initial visit, resting heart rate was recorded at 85 beats per minute. Eyes closed finger-to-nose test bilaterally revealed intention tremors. A left convergence insufficiency was also noted. Upon exit evaluation, resting heart rate was measured at 78 beats per minute. Eyes closed finger-to-nose testing was recorded normal bilaterally. Left convergence insufficiency was still present. Head pain resolved completely after her first treatment session and remained stable. The patient was successfully returned to full academic and athletic participation.

## Conclusion:

This case suggests that chiropractic applied clinical neuroscience may offer a viable and effective intervention for concussion-like symptom management. Given the current limitations in current concussion rehabilitation, this approach warrants further investigation into concussion treatment protocols.



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