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ABCA Advanced Bio-Structural Correction Australasia

Decrease in pain, and increase in athletic performance and recovery time 44-year-old male: A case report

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Background: A 44-year-old male presented for chiropractic care with primary complaints of back and neck pain that had been intermittent over the course of the past twenty years. Though his initial complaints were not novel, his outcomes beyond pain alone were notable.

Intervention: The patient was checked and adjusted using the Advanced Biostructural Correction Technique.

Outcomes: After a twelve-week course of care, the patients abnormal clinical findings had reduced from 23/45 to 5/45 alongside a significant improvement in posture, and a decrease in pain. A novel finding was that the patient also reported marked increase in athletic performance and recovery time.

Conclusion: Chiropractic care belongs in the conversation around human performance and recovery, not just in the world of neck and back pain.

Indexing Terms: Chiropractic; Subluxation; Advanced Biostructural Correction Technique; ABC; athletic performance; well-being.

Introduction

Chiropractic care is increasingly being associated not just with pain relief, but for its impact on the brain and body connection, including muscle strength, cortical drive and speed to muscles, and increasing maximal muscle contraction. Recent studies suggest that Chiropractic adjustments may modulate neural processes which can have a variety of effects on the body's ability to respond, both in terms of strength and sensorimotor integration.

Recent findings adjustments appear to shorten the cortical silent period and increase maximal bite force, both of which are indicative of heightened cortical drive to muscles. This may translate to more immediate, efficient neural activation of movement. (1, 2, 3)

In a study on the H-reflex and V-Waves (measures of spinal cord excitability and drive to the muscles), individuals demonstrated significantly increased

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muscle activation (nearly 60%), improved absolute force (approximately 16%), and enhanced neural drive (around 45%) following spinal manipulation. (2) These effects resembled three weeks of strength training.

Chiropractic interventions may also refine reaction speed and motor coordination. In military personnel, a single session of manipulative therapy reduced the time needed to complete complex, whole-body motor response tasks, thus suggesting immediate improvements in sensorimotor integration even in asymptomatic individuals. (4, 5) Complementary studies illustrate increased reaction time and mental rotation ability following cervical adjustments. (6, 7) Chiropractic-specific research has also confirmed alterations in cortical and cerebellar processing following adjustments.

In an athlete-focused pilot survey, athletes self-reported substantial improvements in strength following Chiropractic care. According to the study's data, recovery improved by a mean of 66%, range of motion improved by 73%, technique improved by 60%, strength increased by 59%, and pain or discomfort decreased by 78%. (5) While the data is subjective, it aligns with the above mentioned neuroscientific findings suggesting enhanced neural drive and reduced fatigue.

Other research (a systematic review of the literature on spinal manipulation on performance related outcomes) did not find strong enough evidence to make a claim relating to spinal manipulation and human performance. (8) However, this study was not specific to Chiropractic care, and was focused on spinal manipulation rather than subluxation-specific findings.

It stands to reason that mitigating back and neck pain would increase a person's ability to engage with physical activity, and on this the Chiropractic research is plentiful. The issue of athletic performance and recovery time, however, is less well-represented in research.

The following case study discusses a decrease in pain and an increase in athletic performance and recovery time in a 44 year old male. This case presents a lived-experience that illustrates real world applications of chiropractic research.

Case details

A 44-year-old male electrical engineer presented to a Chiropractic clinic with a primary complaint of chronic low back pain. He reported that the chronic low back pain had been intermittent for over 20 years, characterised by periods of stiffness and aching that were most pronounced in the mornings. While the severity of his pain had fluctuated over the years, the patient described that he now needed thirty-to-sixty minutes each day before regaining regular mobility. He also recalled episodes consistent with 'pinched nerve' sensations, including sciatic pain radiating into the legs.

He maintained a high level of physical activity despite his symptoms and worked primarily at a desk and was a non-smoker, with no history of surgeries or hospitalisations. At the time of his presentation, his supplementation regime included a multivitamin, vitamin C, vitamin D, Caltrate, magnesium, wheat protein isolate, creatine, and branched-chain amino acids.

The patient also presented with a secondary complaint of acute neck pain, which he had suffered for four weeks. This began after slipping and falling on a rock during exercise. Since the fall, he reported soreness and tightness at the base of the neck.

The patient's prior experience with Chiropractic care was minimal.

Clinical findings

On initial examination, the patient underwent a battery of tests to determine subluxations and abnormalities in posture and function. At this point, the patient demonstrated 23 abnormal findings out of 45 indicators assessed.

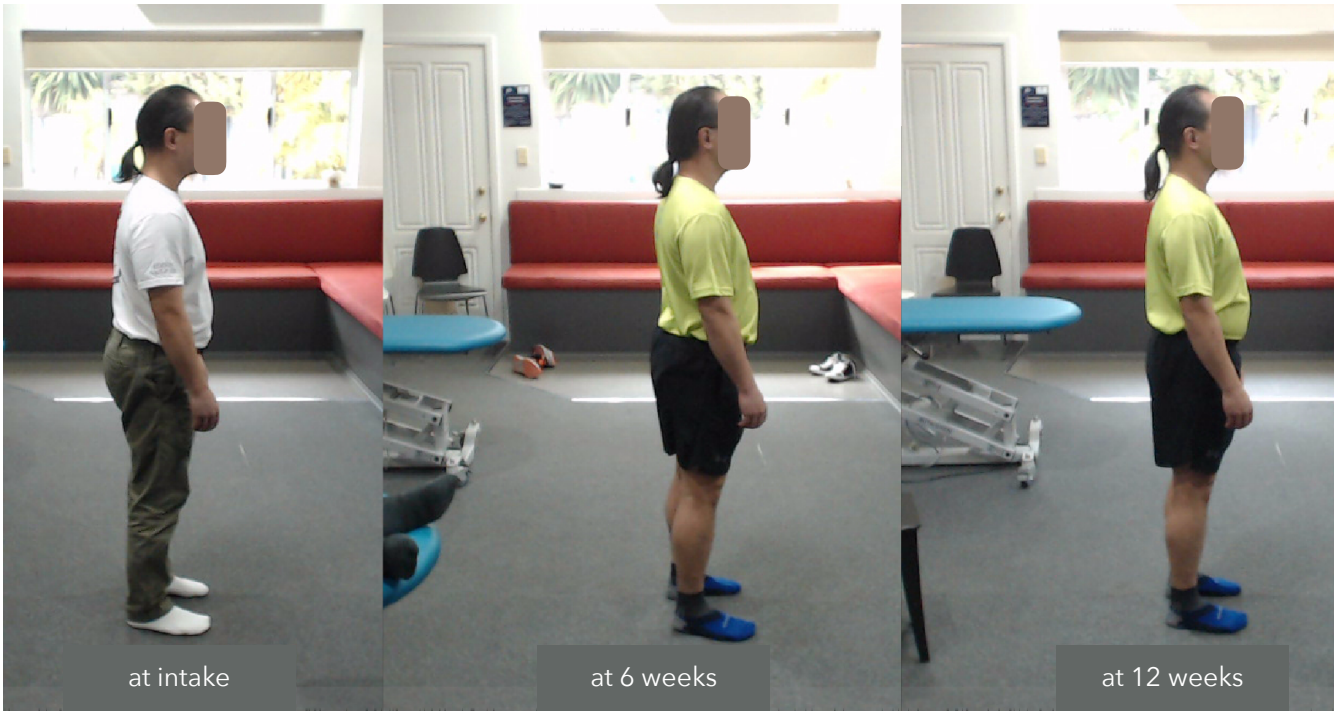
Notable features included:

- myotomal weaknesses in both legs
- bilateral reflex changes
- globally reduced ranges of motion in both the cervical and lumbar spine, and
- impaired balance.

Postural photographs further highlighted functional asymmetries. (see image)

Outcome measures throughout care included muscle testing, range of motion assessment, reflex testing, and postural analysis via photographic records. Spinal subluxations were identified at multiple levels on initial examination and showed progressive improvement across re-examinations.

Postural photos at baseline and at two follow ups are given below.



The patient was managed with Advanced Biostructural Correction (ABC) protocols delivered twice weekly for an initial 12-week period, followed by re-examination and evaluation. In addition to in-office care, he was provided with ergonomic recommendations for sitting, sleeping, and standing, consistent with ABC standards, to support structural correction outside of treatment sessions.

A notable feature of the ABC technique is that adjustments are delivered in an anterior to posterior fashion, as well as performing meningeal releases.

The primary aims of care were to reduce acute cervical pain, improve lumbar mobility, flexibility, and pain, and enhance athletic performance, particularly in running and physical activity. Areas of clinical focus included both symptom relief and optimisation of physical performance.

Progress was monitored through scheduled reviews and re-examinations at 12-visit intervals, utilising outcome measures such as muscle testing, reflex assessment, range of motion analysis, and postural photography.

Outcomes

The patient was able to see marked differences from very early in his care program. Objective measures taken alongside subjective patient self-reports included positive changes in his posture as well as numerous significant clinical improvements.

At the first re-examination, conducted six weeks into care, there was marked improvement in repeated in-office tests. Abnormal findings had been reduced from 23/45 to 7/45. Among these, repeated myotomal testing revealed only residual weakness isolated to the quadriceps bilaterally, while reflexes had returned to normal. Cervical and lumbar ranges of motion showed significant improvement, correlating with the patient's reported reduction in pain and stiffness.

A second re-examination at 12 weeks demonstrated continued progress, with only 5/45 abnormal findings recorded. The patient exhibited further increases in cervical range of motion alongside sustained improvements in lumbar mobility. Subjectively, he reported ongoing relief from pain and stiffness compared to baseline.

The patient reported a significant increase in athletic performance (running) and recovery post exertion. This improvement was notable enough for him to self-report early on in his care-plan. He reported increased ability to feel gluteal and back musculature working when required during running, as well as significant changes in his pain, mobility and flexibility, both initially and consistently over the course of care. He also reported improved moods and sleep.

> This patient had originally presented as a chiropractic skeptic, having been told not to trust chiropractors before commencing care. While he was impressed with the changes in his symptomatology, he was also extremely impressed with the changes in his athletic performance.

Discussion

Part of the Chiropractic process is listening to the patient and identifying what is important to them. Two features of this stand out:

- the patient's skepticism about Chiropractic, and
- his quick realisation that Chiropractic care was contributing to notable improvements in both his pain levels and athletic performance.

One key change he highlighted was his ability to wake up feeling ready to move without the need for the thirty-to-sixty minute warm-up period. This improvement not only supported his

athletic performance but also contributed to a self-reported increase in mood and general wellbeing. These outcomes suggest a shift in how his body responds to physical demands, allowing him to train and compete at a higher level.

Conclusion

While objective measures of athletic performance were not collected in this case, the patient's experience reflects what has been documented anecdotally and in elite sports settings, where Chiropractic care is commonly used to support both recovery and performance.

Based on the observed improvements, it is reasonable to consider Chiropractic care a contributing factor, as adjusting subluxation, and optimising joint function and neurological communication provides a stronger foundation for athletic activity and resilience to injury.

Further research into associations between Chiropractic care and elevations in athletic performance and recovery time may provide more valuable insights.

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About the Chiropractor

Dr Rhys Hartmann is a Chiropractor with a strong clinical focus on the ABC technique. He holds Level 2 ABCA certification and is currently completing Level 3 certification, with plans to progress to instructor level and help expand ABC care across Australia.

Rhys has been practising the ABC approach for five years, beginning shortly after graduation. He is the owner of Duncraig Chiropractic, which he runs alongside his fiancée, Dr Brittney Laming. Together, they are committed to clear, practical Chiropractic care grounded in sound technique and consistency.

Outside the clinic, Rhys is a keen sports enthusiast. While he enjoys most sports, his real passion is NRL, with unwavering support for the Melbourne Storm and Queensland.