

Improved sleep, mood and physical resilience and decreased pain in a 46-year-old female under chiropractic care: A case report

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Background: A 46-year-old female presented for chiropractic care with pain in the pelvis following a motor vehicle accident one year prior. At the time of presentation, she had severely limited physical resilience, limited ability to walk, lie down or stay in one position for too long, and she had a long medical history of other physical health problems.

Management: The patient commenced chiropractic care, to which she was a novice, in the hopes of achieving reduced pain. She commenced a 12-session care plan and was adjusted using Torque Release Technique, with Instrument-assistant (integrator), Manual adjustments (HVLA), SOT blocks (pelvic region), Drop table (sacro-pelvic region) and Toggle board (upper cervical region).

Outcome: After 12 sessions of chiropractic care, she reported increased sleep, mood, energy and physical functioning, decreased pain, decreased dermatitis, increased digestive function and reported that she felt more alive than she had in years.

Indexing Terms: Chiropractic; Subluxation; Torque Release Technique; resilience; salutogenesis; dermatitis.

Introduction

Improvements in musculoskeletal pain following chiropractic care have been well-documented since research into this care modality began.

In recent years, another prominent theme has emerged alongside pain improvement; physical resilience. Physical resilience is a term used to describe the body's ability to adapt and respond to the challenges it faces. This is most clearly observed following periods of illness and injury, where individuals with high physical resilience can 'bounce back' more quickly and completely than those with low physical resilience.

Physical resilience is most commonly mentioned in relation to frailty and ageing, but its importance throughout a person's life is starting to be understood. (1, 2)

... this heavily medicated patient presented for allopathic care including pain relief, but received a range of beneficial salutogenic outcomes ...'



This theme of physical resilience pairs well with the chiropractic understanding of adaptability, and the *Australian Spinal Research Foundation's* definition of the subluxation as a 'diminished state of being, comprising a state of reduced coherence, altered neurological function and altered adaptability'. (3) Reduced physical resilience may be thought of as a reduced state of adaptability that may result in or manifest through subluxation.

A vertebral subluxation may result when the body is not able to adapt to a stressor, whether it be physical, emotional, or toxic in nature. This is particularly relevant as current research tends to view resilience as predominantly a psychological trait. When we view the body and brain as interconnected, we must then take on the challenge of understanding how ongoing traumas and stressors might decrease physical functioning, nervous system regulation and the individual's experience of life more broadly.

Another challenge for chiropractors dealing with patients who may have complex physical or emotional trauma and reduced physical resilience is the concept of salutogenesis - the origins and building up of health rather than focusing on the cause of specific diseases. (4) Can we operate in a salutogenic model, increasing health, adaptability and physical resilience while also treating (allopathic) pain?

This case report presents a complex case, albeit one that presented as pain post motor vehicle accident. While critical incidents like this may be the door into care for many patients, they are often not the only improvement experienced by the patient. In this case, a generalised improvement in physical resilience was realised when care for the nervous system was introduced to support optimal function.

Case details

A 46-year-old female presented for Chiropractic care with constant pain in the pelvis following a car accident a year prior. She was a novice to Chiropractic care and reported that walking more than 10-12 minutes, lying down, staying in one position for too long or standing for longer than five minutes would all make the pain worse.

With the above being her primary concerns and reason for presenting, she also had secondary complaints of bilateral shoulder and neck pain.

History and Examination

Upon presentation to the Chiropractic clinic, a thorough history and examination was undertaken. During this process, it was reported that she was T-boned on the driver's side of her car while driving in March of 2022. She sustained a pelvic ring fracture and a fracture of the L1 vertebra as a result of this accident.

The patient also had a past medical history of abuse and trauma, a gastric bypass after which her nausea had not subsided, a fall down a flight of stairs, an ulcer repair, and a hysterectomy in 2016. At the time of presentation, she did not exercise, commuted fifteen minutes to work per day, and had a sedentary, desk-based job. The patient reported that she slept on her back and her side, and would wake up stiff and tired. She expressed difficulty bending over at the waist and lifting her legs.

In addition to this, the patient had a recent past medical history of sore throat, swollen tonsils and adenoids, as well as bronchitis. She reported focus and memory issues, anxiety and stress, depression and chronic fatigue syndrome in addition to chronic stress. Other symptoms of concern included gallbladder issues, fever, stomach pain, blood sugar problems, sciatica, bladder and urination issues, menstrual issues with endometriosis, haemorrhoids, leg weakness and weak ankles. At the time of presentation, she had a current and past history of vertigo and dizziness with her migraines but reported that they had been worse since the car accident.

Additionally, a current and past medical history of balance and coordination issues (for which she had physical therapy in the past), poor metabolism and weight control, constant reflux and asthma.

The patient had present symptoms of ear and sinus infections, sinus congestion and has had constant post-nasal drip since she had nasal fractures in her 20s, migraines which have been worse since her car accident, she wears corrective lenses, has low energy and fatigue, difficulty sleeping with pain when lying down, stiff neck and shoulders, kidney problems, gas pain and bloating, constipation and diarrhoea that fluctuates and has been worse since her car accident, lumbopelvic and sacroiliac joint pain, knee, ankle and foot pain as well as low back pain.

The patient had received a medical diagnosis of *Crest Syndrome*, *Scoliosis* and *Scleroderma* from her rheumatologist. At the time of presentation, her pharmaceutical interventions included *Methotrexate*, *Cetirizine*, *Astolen*, *Nasonex*, *Actemra*, *Onendosterone*, *Rizitriptan*, *Topamate*, *Folic Acid*, *Omeprazole*, *Proair*, *Amovig* (for migraines), *Calcium Citrate*, *Magnesium*, and *Valacyclovir*.

Initial chiropractic assessment of the patient included postural analysis, digital thermography, surface EMG, Heart Rate Variability and full spine x-rays.

Throughout the course of the patient's management, postural analysis, digital thermography, surface EMG, Heart Rate Variability and full spine X-rays were used. Her initial chiropractic examination revealed that her left leg was short (when prone) by one-half of an inch. She returned a positive left *Derefield* test, decreased sacroiliac range of motion bilaterally, a positive left *Webster* test (with resistance on the left) and a decreased left straight leg raise.

This was followed by a functional neurological examination which returned numerous notable results. *Romberg's* (with eyes open) showed a mild left sway, and *Romberg's* with eyes open and head tilted back showed a moderate left sway. It should be noted that when the *Romberg's* tests were performed with eyes closed, the left sway was notable, it was with one eyelid fluttering.

Standing on one foot was difficult on the left side. The rapid finger movement test was slow on the right, as was the repeated thumb-to-index finger test. When asked to perform the finger-to-nose test, the right side was hypometric with an end tremor on the left. The tandem heel-to-toe test was also revealing as, with eyes open, there was a significant left drift and the patient was unable to perform it for long. With eyes closed, there was a slight left drift. With dual tasking, she was unable to perform. C1 was taut and tender on the left, and bilateral foot bounce out was noted while lying prone.

Full spine x-rays revealed a right head tilt, decreased cervical lordosis and anterior head carriage. Decreased cervical flexion and extension range of motion was also noted, along with right-side pelvic unleveling and right lumbar convexity.

Chiropractic analysis revealed vertebral subluxations localised to the upper cervical area, lumbopelvic area, cervicothoracic region, and mid-thoracic area.

Management

Following assessment, the patient commenced a course of Chiropractic care comprising two visits per week for twelve visits. During this time, the patient was adjusted using the *Torque Release Technique*, with Instrument-assistant (integrator) technique, Manual adjustments (HVLA), SOT blocks (pelvic region), Drop table (sacro-pelvic region) and Toggle (upper cervical region).

The patient's three main goals for care were

- ▶ less pain
- ▶ improved sleep and
- ▶ improved movement.

The chiropractor's main goal was to reduce/correct all presenting areas of vertebral subluxation in order to enhance the patient's ability to live life optimally via increased resilience and adaptability. Specific areas of focus were the upper cervical region, the cervicothoracic junction and the lumbopelvic region.

Outcomes

A progress evaluation was undertaken after the first twelve visits. At this point, the patient stated that she had an easier time moving, and could now lay down in bed all night and sleep. She was now sleeping better, both falling asleep easier and staying asleep longer, and reported that she was happier and had more energy. The patient also reported a reduction in her dermatitis breakouts (which ordinarily occurred on her face), and that she was using less medication as a result.

Chronic constipation, comprising approximately one bowel movement every three to four weeks, had resolved and she was now able to have a bowel movement daily. She reported better digestion with decreased gas as well as decreased heartburn.

Objective measures included improvements in autonomic tone across the board, improved neurospinal function (which was confirmed via EMG readings, and decreased neurospinal tension. The EMG revealed a modest change in the cervical region indicative of an improvement in postural energy expenditure. This is significant due to the cervical radiographs showing evidence of altered biomechanics due to previous trauma. The thermal scan also showed an improvement in the autonomic tone (primarily in the lower cervical region).

The patient stated that her experience with chiropractic had been *'Absolutely life-changing. Haven't felt this alive in years'*.

Discussion

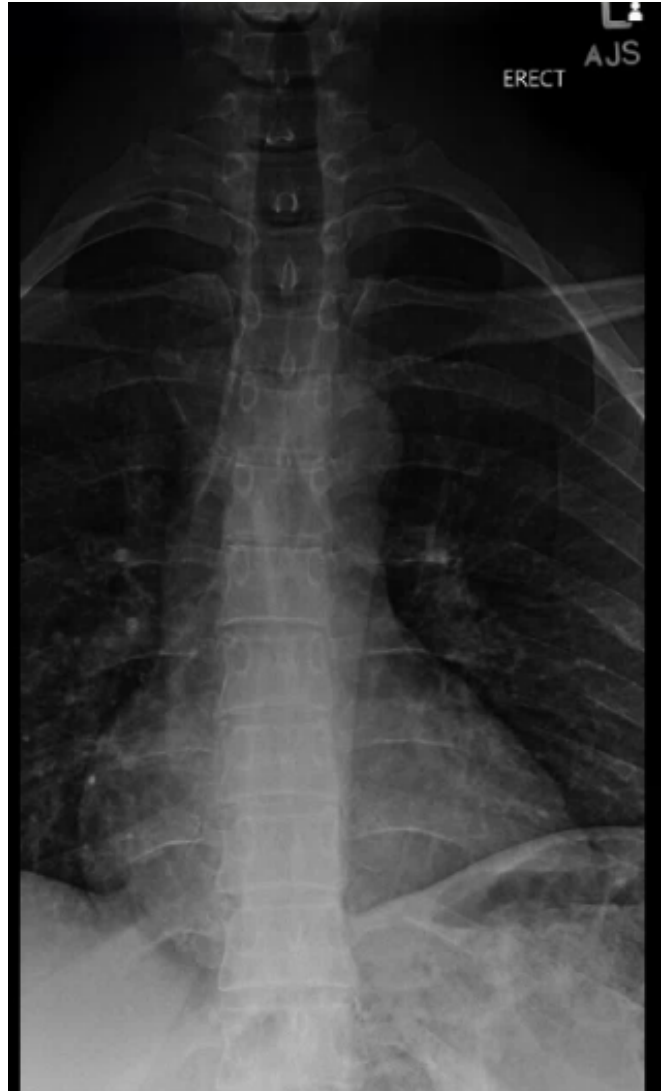
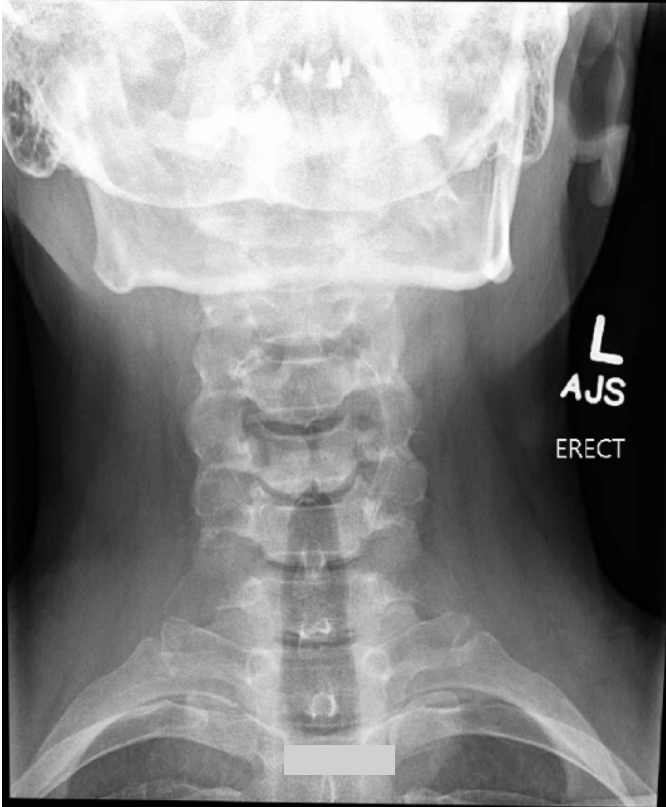
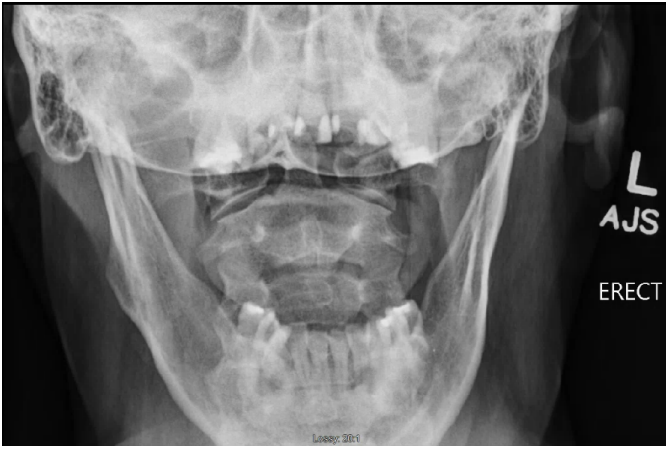
In this case, a novice to Chiropractic care presented hoping for an improvement in mechanical pain. However, given that better nervous system function means better organisation and expression of life, by adjusting her subluxations and removing interference we were able to allow the best possible situation for optimal nervous system functioning, self-regulation and healing, thus significantly impacting quality of life.

The many, varied and significant stressors throughout the patient's life should give pause for Chiropractors to consider the widespread neurophysiological impact of stress held in the body. Likewise, it provides an impetus for more research into complex trauma recovery even from a salutogenic perspective.

Conclusion

This case report presents an instance in which a patient presented for allopathic care, but received salutogenic outcomes. Furthermore, it presents the rationale for further study into the impact of salutogenic, chiropractic care on complex cases.

Images



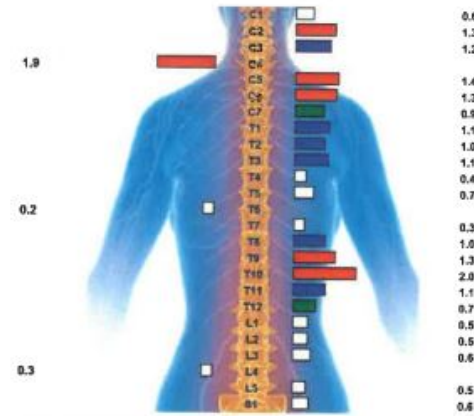


Post

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10:22 AM

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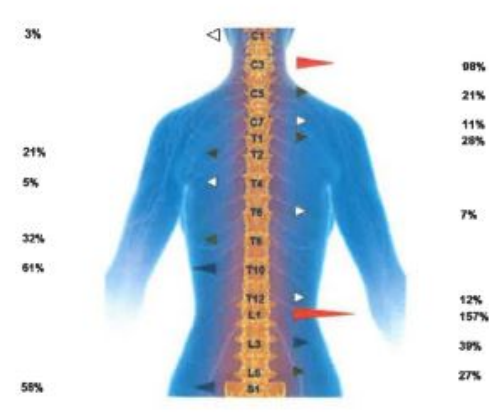
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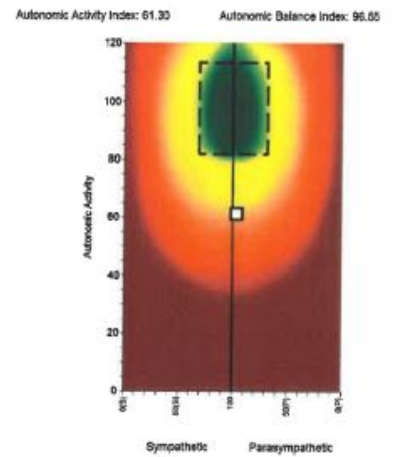
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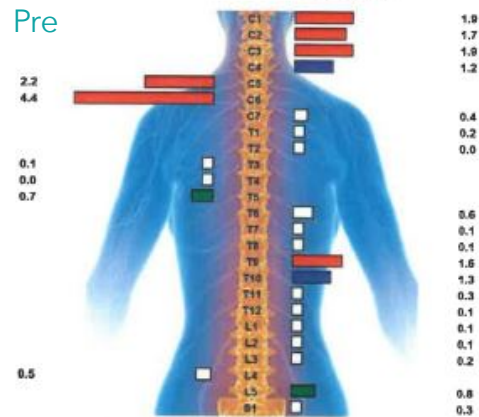
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Rolling Thermal NCM Graph on 5/17/2023
8:52 AM

Scan Score=76 Exam=Dr. Kate Clodgo-Go

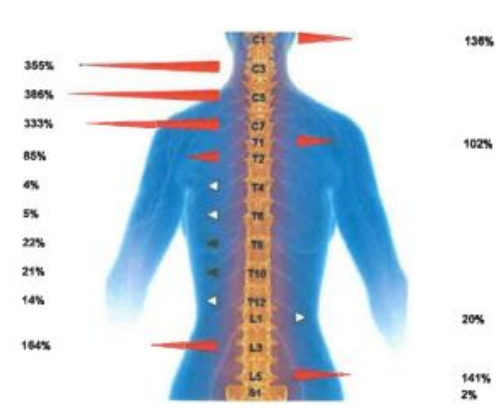
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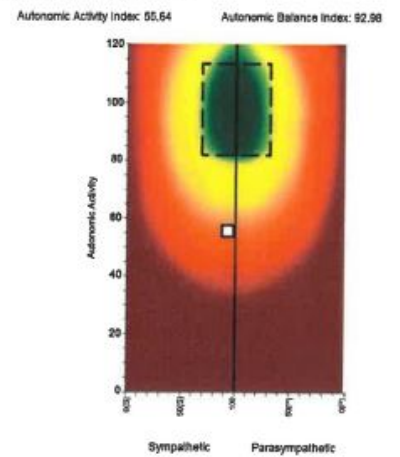
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Scale: 400 %



HRV on 5/17/2023 9:00 AM

Scan Score=69 Exam=Dr. Kate Clodgo-Go



Pre

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About the Chiropractors

Dr Bruce Steinberg graduated from the Palmer College of Chiropractic in 2006 and has been in practice since. He is a member of the *New York State Chiropractic Board*, the *International Federation of Chiropractic Organisations*, the *International Chiropractic Pediatric Association*, and more. His reputable career in chiropractic includes running a successful chiropractic practice, *Quantum Chiropractic*, and serving the chiropractic community through his involvement with foundations and organisations serving the profession locally and internationally.

Dr Kate Clodgo-Gordon graduated from the New York College of Chiropractic in 2014. She practices at Quantum Chiropractic in Queensbury NY and is currently working towards her *Certification in Pediatric Care* with the ICPA.

About the Case Report project

This Case Report is a part of the *ASRF Case Report Project*, a project designed to gather client studies from chiropractors and transform them into much-needed case reports, focused on the effects of chiropractic care on clinical presentations highly relevant to chiropractic, such as stress, immunity and adaptability.

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