

IMPROVEMENT IN QUALITY OF LIFE IN A FEMALE PATIENT WITH CROHN'S DISEASE FOLLOWING CHIROPRACTIC CARE FOR THE CORRECTION OF VERTEBRAL SUBLUXATION: A CASE REPORT

David Russell, BSc (Psych), BSc (Chiro), Cert TT^a, Tanja Glucina, BSc (Psych), BSc (Chiro), BHlthSc(HonsClass1)^{a,b}

^aPrivate practice, Auckland, New Zealand

^b Operations Manager (Research Department) and Lecturer, New Zealand College of Chiropractic, Auckland, New Zealand

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ABSTRACT

Objective: To chronicle the improvement in the quality of life (QoL) of a female with Crohn's disease (CD) receiving Torque Release Technique (TRT) chiropractic care for the assessment and correction of vertebral subluxation.

Clinical Features: A 38-year-old female, with a 6-year history of diagnosed CD, presented for chiropractic care.

Interventions and Outcome: Chiropractic care over 6 weeks, using TRT was provided for the assessment and correction vertebral subluxation. Improvement in QoL and symptoms associated with CD were reported.

Conclusion: A course of chiropractic care using TRT for the assessment and correction of vertebral subluxation was associated with improvement in QoL in a patient with CD. More research is needed to investigate the role chiropractors may play in helping similar patients so as to inform clinical practice and future higher-level research designs. (*Chiropr J Australia 2017;45:1-10*)

Key Indexing Terms: Chiropractic; Crohn's Disease; Inflammatory Bowel Disease; Quality of Life; Vertebral subluxation; Torque Release Technique

INTRODUCTION

Crohn's disease (CD) is a relapsing form of inflammatory bowel disease primarily affecting the gastrointestinal tract. (1,2) There is no confirmed etiology of CD; however, it is thought to be stimulated by a combination of factors, including environmental and immunodeficiency.(1-4) CD is equally as common in males and females, and most common in the second to fourth decade of life. (5)

CD is typically characterized by abdominal pain, fever, bowel obstruction or diarrhoea, weight loss, anemia, skin rashes and fatigue. (1) CD is associated with seronegative spondyloarthropathy which can lead to ankylosing spondylitis or sacroiliitis. (6)

Molodecky et al. (5) state the incidence and prevalence of inflammatory bowel disease, including CD, varies in different parts of the world and are highest in westernized nations. Generally, the prevalence is increasing worldwide, the highest being in Europe and North America, specifically Italy (322 per 100,000) and Canada (319 per 100,000). (5-7) In the United States alone there are an estimated 1.6 million people with inflammatory bowel disease. (8)

CD results in significant impact to quality of life (QoL) and economic status. (7,9-12) Lack of certainty with the condition, the social impact of potentially requiring an ostomy bag, and reduced energy levels all contribute to impaired QoL. (11) Females with CD are more likely to report reduced QoL. (10,11) Sick leave, unemployment and permanent work disability, result in loss of income while medical and hospital expenses further contribute to economic burden. (7,11)

There is a currently very limited literature describing chiropractic care of patients presenting with CD. (13) The purpose of this paper is to chronicle the improvements in QoL in a 38-year-old female with CD receiving Torque Release Technique (TRT) chiropractic care for the assessment and correction of vertebral subluxation.

CASE REPORT

A 38-year-old female presented for chiropractic care seeking a natural approach to manage symptoms associated with CD. The symptoms of CD, including abdominal and back pain, and anxiety, had been present for 6 years and had been formally diagnosed by her medical specialist.

The patient's state of health deteriorated over the years following her diagnosis, resulting in the closure of her business and limits in social life. She suffered extreme anxiety resulting in limited time away from home, reducing her independence and leaving her feeling isolated, and experience shortness of breath. Prescribed medication was ineffective despite physician attempts to increase the dosages in the hope of benefit.

The patient was assessed using the self-reported Health Wellness and Quality of Life (HWQL) instrument, which measures 5 domains (physical functioning, mental and emotional state, stress evaluation, life enjoyment and overall QoL). (14-16) Her self-assessment revealed perceived ratings of 50% to 63% across all domains. (Figure 1)

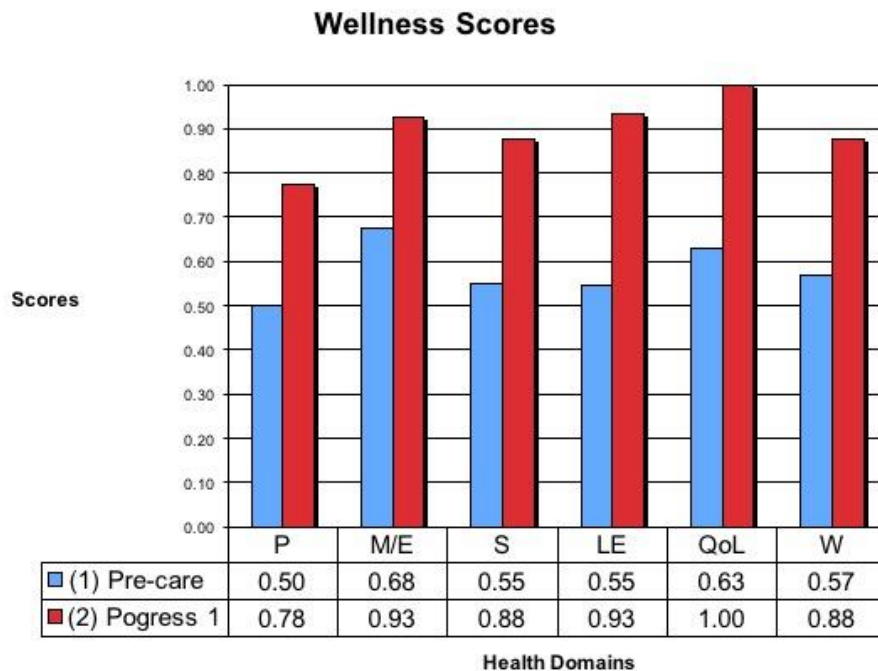


Figure 1 – Pre-care and progress HWQL comparative results

Chiropractic examination for vertebral subluxation was performed using commonly used clinical indicators. (17-21) Examination revealed generalized spinal restriction. Vertebral subluxations were indicated at C1, C2, T1-T8, T/L junction and right sacroiliac joint, using a battery of objective measures including joint tenderness, intersegmental ROM, joint end-feel, paraspinal muscle palpation, leg length inequality, Derifield and cervical syndrome.

Thermography and surface electromyography (sEMG) studies were recorded using the Insight 7000™ and are considered reliable measures.^{17,22} Thermography revealed overactivity of varying levels of severity at C3, L1 and L2, while sEMG revealed areas of hyperactivity at C1, C3, C5, C7-T2, T6, T8, L5 and S1. (Figure 2)

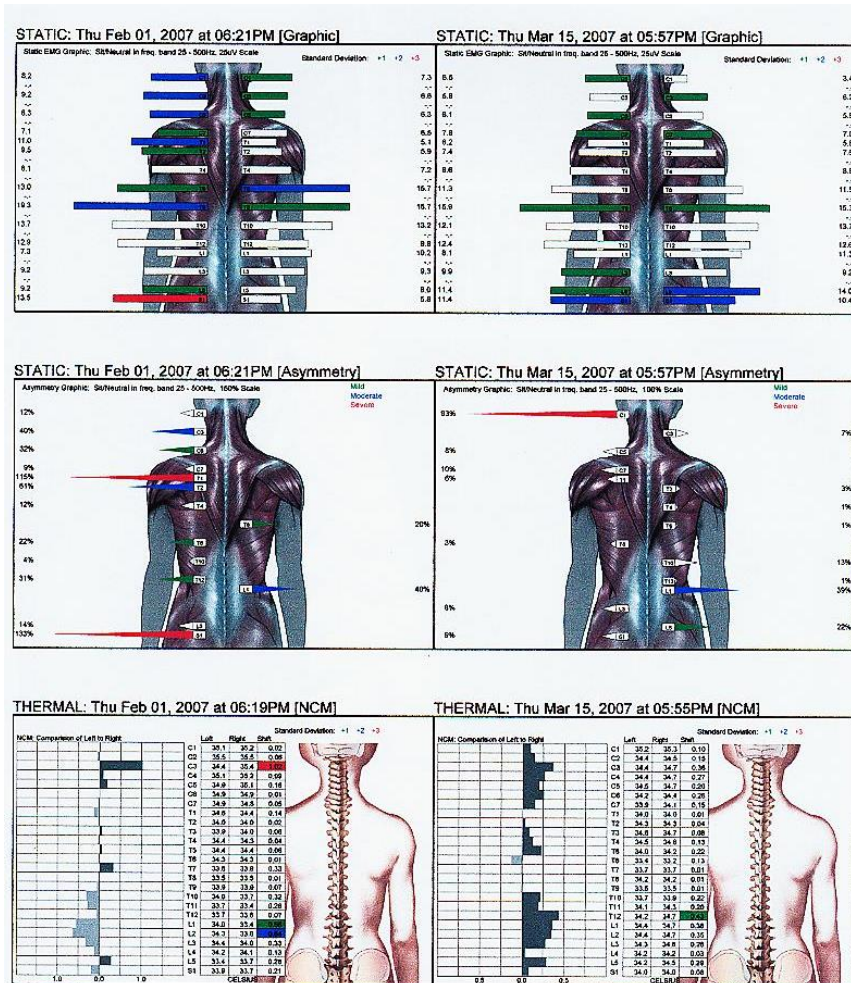


Figure 2 – Pre-care and progress sEMG and Thermography comparative scan results

Patient Management

Chiropractic care was administered over a period of 6-weeks where the patient was seen twice weekly for 12 visits using TRT. The TRT model of chiropractic care focuses on detecting areas of vertebral subluxation at locations of dural attachment, being the upper and lower cervical spine (C1, C2, C5), sacrum, coccyx and the pelvis, assessed through primarily functional leg checking and confirmatory spinal pressure testing procedures. The application of the chiropractic adjustment is via the Integrator™ instrument. (23,24)

No interventions other than those stated were administered in this time period either by the chiropractor or medically. No adverse events were reported during the course of chiropractic care.

Outcomes

During the course of chiropractic care, the patient reported improvements in her posture digestion and bowel function, breathing, state of mind, energy levels, sleep, strength and eating habits. Reduced abdominal and back pain, and effects of stress

were also reported. She reported experiencing greater family and social life enjoyment and returned to work after a 4-year hiatus.

Improvements were recorded in all domains of the self-reported HWQL assessment. The greatest improvements were reported in her perceived QoL (increasing from 63% to 100%) and life enjoyment (increasing from 55% to 93%). For a complete comparison of HWQL results see figure 1.

Improvements were recorded in Thermography and sEMG after the progress examination. Thermography findings reduced to hyperactivity indicated only at T12. sEMG findings were evident at C1, C3, C7, T8, L3, L5 and S1, reduced in severity and became more balanced bilaterally. These findings indicate improvement in dysponesis and dysautonomia. For a complete comparison of thermography and sEMG results see figure 2.

DISCUSSION

This case chronicles a course of chiropractic care associated with improvements in QoL in a patient with CD. Additionally, improvement in dysponesis and dysautonomia was reported following the correction of vertebral subluxation.

There is no known cure or consistently effective treatment for CD, though treatment generally aims to maintain sustained remission of inflammation and progression of the disease course. (25) Routinely cessation of smoking and dietary changes are recommended. Conventional treatments administered for CD are typically pharmaceutical (antibiotics, anti-inflammatories and corticosteroids) or surgical (removal of the affected section of the bowel) in nature. (25,26) Almost all medications for CD are associated with potentially life-threatening infections. (25)

Complementary and alternative medicine (CAM) approaches, including chiropractic, are becoming more popular for people with CD. (27-32) CAM use in this population ranges from 21% to 60%. (27,28,31,32) Most commonly sought CAM therapies include homeopathy, probiotics, naturopathy, diet, exercise, prayer and acupuncture. (27-33) Chiropractic was reported to be used by only 11% of people with CD. (28) The primary reasons for CAM use were to alleviate symptoms of pain and diarrhoea, to gain greater control of their life and condition, and the focus on an holistic approach. (27,32)

Verhoef et al. (30) reported that 79% of chiropractors in a study group managed patients with CD. The study group consisted of chiropractors (62), pharmacists (19), herbalists (16) and health store employees (15). 'Spinal manipulation' was the primary method of patient management by chiropractors in this group. The most common reason for providing chiropractic care, reported by 92% of chiropractors in this group, was "to remove nerve irritation caused by subluxation".

Despite the previously reported high percentage of chiropractors managing patients with CD there is very limited evidence in the chiropractic literature reflecting this. Williams and Bergmann (13) reported on a 9-year-old female presenting for

chiropractic care due to musculoskeletal complaints. During the course of care, the patient was found to have CD and management then consisted of nutrient and dietary changes. The patient was reported to be symptom-free and with negative laboratory findings after 14-months. It is unknown if chiropractic care was continued or had an impact on the symptoms associated with CD, or if this was as a result of the nutrient and dietary changes.

Chiropractic care aims to optimize health and wellbeing through enhancing nervous system function by correcting vertebral subluxation. (34) The Australian Spinal Research Foundation conceptually define of vertebral subluxation as "a diminished state of being, comprising of a state of reduced coherence, altered biomechanical function, altered neurological function and altered adaptability." (35) A vertebral subluxation has been recognized as a complex of functional and/or structural changes in the articulations of the spine and pelvis that compromise neural integrity and may influence organ system function and general health. (36) Vertebral subluxation correction is achieved through chiropractic adjustments that are a typically manually performed. (37-39)

Overall positive results were seen in patient-perceived QoL. The course of care, in this case, was consistent with the approach described by chiropractors as reported by Verhoef et al. (30) The findings from this case report provides an opportunity for further investigation into the effects of chiropractic care on patients presenting with CD.

Limitations

Due to the inherent limitations of a case report, being an isolated case not controlled for external factors and natural progression, the findings cannot be generalized or causation of vertebral subluxation correction implied. As there was limited information gleaned from the chiropractor's initial physical examination of the patient (other than the levels of vertebral subluxation identified), additional biomechanical factors that may contribute to the patient's health status cannot be determined. There are no other known cases reported in the literature, hence comparisons cannot be made. To further gauge the effectiveness of chiropractic care, further investigation is required.

In this case report, QoL was assessed using an instrument that is not validated. While this is a self-rated report based on the patient's subjective experience it isn't comparable to a standardized population. The HWQL instrument has, however, been used and the results reported on in the chiropractic literature. (14-16,40-47) A more appropriate assessment instrument, in this case, may have been the Short Inflammatory Bowel Disease Questionnaire (SIBDQ), which measures disease-specific quality of life and has physical (systemic and bowel symptoms), social and emotional dimensions. (10)

CONCLUSION

A course of chiropractic care using TRT for the assessment and correction of vertebral subluxation was associated with improvement in QoL in a patient with CD. Due to the very limited chiropractic literature on the topic described in this case,

more research is needed to investigate the role chiropractors may play in helping similar patients so as to inform clinical practice and future higher-level research designs.

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