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ASRF CASE REPORT PROJECT

Improvement in migraines, sleep, musculoskeletal pain and anxiety in a 27-year-old Post-Natal female undergoing Chiropractic care: A case report

Bruce Steinberg, Kate Clodgo-Gorden, Ruth Postlethwaite and Clare McIvor

Background: A 27-year-old postnatal female presented with musculoskeletal pain, but on examination was found to also have migraines, problems with memory, energy and focus, anxiety, low energy and difficulty sleeping. She reported waking up feeling stiff, sore and unrested.

Intervention: The patient was placed on a twelve-week care plan during which time she was checked and adjusted twice a week and adjusted using a Torque Release Technique analysis while vertebral subluxation correction was performed utilising an Integrator Instrument Assisted, manual methods (HVLA), SOT pelvic blocking, pelvic drop table drop piece and a toggle board techniques.

Outcomes: The patient reported significant improvement outcomes across all measures, especially quality and quantity of sleep, focus, anxiety, and ability to handle stress. This was concomitant with a complete resolution of migraines and neck pain, and a significant reduction in headache and other musculoskeletal pain.

Conclusion: Assisting new mothers in regaining adaptability postpartum may be a significant aspect of chiropractic care. An aspect of subluxation during this time may include poor sleep quality and quantity, which may impact other areas of life, including migraine, headache, energy, focus and mental health.

Indexing Terms: Chiropractic; Subluxation; Torque Release Technique; ADL; Quality of Life.

Introduction

Recent Chiropractic research has provided numerous insights into the impacts of subclinical neck pain on various elements of brain function. These include proprioceptive differences in upper limbs, negative impacts on cortical and cerebellar processing and decreased mental response times for complex rotation tasks. (1, 2, 3)

Initial research has shown positive impacts on these measures when participants receive Chiropractic care for their subclinical neck pain.

> *... The patient's top three health goals included fixing neck pain, learning ways to help it at home and fixing back and hip pain. Conservative, gentle Chiropractic care achieved these . ...'*

Furthermore, follow-up research has indicated significant differences in multi-sensory integration at baseline measures and after four weeks of Chiropractic care. These initial studies show to a certain degree that the central theme of Chiropractic being adjustment of subluxation, can have a significant impact far beyond back and neck pain alone.

It illustrates the impact of even subclinical neck pain on the nervous system which remains consistent with the vast nerve supply passing through and exiting from the cervical spine. Noting that this lies below the level of pain and dysfunction that would normally trigger a person to seek care, it follows that those with clinical neck pain may have levels of dysfunction greater than that seen in the sample groups of these studies prior to their Chiropractic interventions.

While this line of investigation continues, case report data is emerging that teases a potential link between Chiropractic care and a reduction in anxiety or an increase in mental clarity. (5, 6, 7, 8) Further research is certainly required to discover and explain the mechanisms behind such improvements before Chiropractors could claim any links. The premise towards which this work is heading is validation of the Chiropractic concept that adjusting the subluxation impacts the Quality of Life and does much more than just 'reduce pain and improve movement'. (9)

As we examine how we deliver this care to different aspects of our practice-member base, post-natal care emerges as an important time in the life of both mother and baby. As significant changes occur in the body of the mother in the natal and post-natal period, a number of predictable stressors arise: recovering from birth, adjusting to an altered sleep schedule, and bringing a new baby into the family may all impact stress, nervous system function and subluxation. All of these changes place a high demand on the maternal ability to adapt to these new realities, and all of these stressors may also create the conditions in which subluxation and altered adaptability capacity may arise.

With current data indicating that one in seven women suffers from documented postpartum depression, and with the possibility that unreported cases could be as high as 50% due to societal stigma surrounding mental health, (10) the role that Chiropractic plays in postpartum care needs to be explored more fully.

This case reports a 27-year-old postpartum female suffering from migraines, poor sleep, and anxiety.

Case details

A 27-year-old female nurse with limited experience of Chiropractic care presented with primary concerns of low back, hip and neck pain. All were described as 'constant' and all had been increasing in severity over the months leading to her presentation at the Chiropractic clinic. The patient presented with constant low back, hip and neck pain, all worse after giving birth in February.

During the history and examination, it was revealed that she had been induced and had an emergency C-section birth due to the cord being wrapped around the baby's neck. Since then she reported feeling like her neck is being pulled forward. She stated that stretching makes it better and working out and doing house chores makes it worse.

She had been seen by a Chiropractor four or five years earlier for about three months but not since the birth of the infant. At the time of the presentation, she was working out three to five times a week doing running, cardio, weights and the stationary bike. She was a side sleeper but normally woke up stiff and tired. Her work life involved a commute of approximately twenty minutes each day, followed by spending eight hours at a desk and computer.

The patient rated her consumption of water as high, dairy and gluten as moderate, sugar and processed foods as low and she consumed no alcohol, artificial sweeteners, sugary drinks, cigarettes or recreational drugs. She rated work as moderate to high stress, life, money and family as low stress, and home and health as no stress.

At the time of presentation, she reported experiencing headaches approximately twice a week and described them as being located behind her eyes. She had experienced difficulty sleeping since giving birth, and bilateral aching in her elbows and the triceps area. She described having focus and memory (feeling scatterbrained since giving birth) issues since the birth, as well as anxiety, stress, stiff neck and shoulders, low back pain and restless legs with calf cramps every night.

Her past medical history included reflux during and before pregnancy, indigestion, chronic fatigue, gas pain and bloating, migraines and sciatic pain.

Clinical findings

Upon examination, Chiropractic analysis revealed a right external foot flare, a short left leg (¼", 60mm, while prone and a straight leg raise that was decreased on the left. Further neurological tests returned positive results for right Cervical Syndrome, and left Derifield, with Webster's test showing resistance upon left heel to buttock while prone. A bilateral sacroiliac fixation was also apparent. The left sacroiliac and left C1 were both taut and tender.

Romberg's' with eyes open were within normal limits, but a right sway was evident with a Romberg's test performed with head back and eyes open, as well as with eyes closed. The patient found it difficult to stand on her left foot. When asked to open and close her hands rapidly, the left side was slow. Rapid finger movements (piano playing motion) were within normal limits, as were repeated thumb-to-index finger movements.

The finger-to-nose test was slower on the right. Her tandem heel-toe walk drifted to the right with both eyes open and eyes closed, however the drift was more severe with eyes closed. A dual-task tandem heel-toe walk also drifted to the right and was more difficult to perform. Also noteworthy was the fact that her eyelids fluttered while performing the neurological tests that involved closed eyes.

Chiropractic analysis, which included postural analysis, digital thermography, surface EMG, heart rate variability, and full spine X-ray, revealed vertebral subluxations in the upper cervical area, thoracolumbar-pelvic area and sacrum. A Hamilton Anxiety Rating Scale (HAM-A) was also taken. The HAM-A revealed a score of 17 which equated to a mild severity.

Management

Upon initial examination, the patient was placed on a care plan that involved two sessions weekly for twelve weeks with a progress evaluation after the first twelve visits (at the six-week mark). She was managed through subluxation-based Chiropractic care utilising using Torque Release Technique analysis. Here, the adjusting thrusts consisted of a combination of Instrument-based assessment (Integrator), manual-based adjustments (HVLA), and SOT blocking in the pelvic region along with drop table for the sacro-pelvic region and toggle board for upper cervical region cervicals.

The patient's top three health goals included fixing neck pain, learning ways to help it at home and fixing back and hip pain. Given the widespread subluxation findings throughout the spine, there was no isolated area of focus, but rather full spine adjusting to address all subluxation findings.

Outcomes

In this case significant outcomes were noted at the re-evaluation session after a relatively short amount of time. The patient stated that she had better focus, more energy, less anxiety and was handling stress better. Where she was getting headaches twice a week and migraines twice a month, she now reported a 50% reduction in headaches and complete resolution of migraines. The patient also reported a significant reduction in hip pain and a complete resolution of neck pain.

The Chiropractor was able to observe an improvement in posture, strength and flexibility, as well as a number of other improvements when objective tests were repeated. Thermal scanning showed reduced nerve stress in the upper cervical and thoracolumbar areas. sEMG revealed a change in neuro-spinal tension in the upper cervical and lumbosacral region, thus indicating a significant improvement in subluxation. The Hamilton Anxiety Rating Scale (HAM-A) scores had decreased from the initial evaluation (from a 17 down to a 6). With a score of 6, she had dropped out of the mild severity and was now within normal limits.

The patient stated that the biggest change after starting chiropractic care was how much better she could handle stress.

Discussion

The postpartum stage of life for both mother and baby is a time of high demand in terms of adaptability, as the mother's body undergoes several significant changes to birth and nurture her infant while also then recovering from the birth and pregnancy. Chiropractic support of the mother during this time is to normalise biomechanical function and restore or support optimal neurological function that may have suffered due to birth trauma and resulting subluxation.

How the subluxation and its subsequent resolution impacts each individual will vary, but it is clear in this case that a reduction in objective subluxation findings was concomitant with an improvement in symptomatology that included a resolution of migraines and a reduction in anxiety and musculoskeletal pain.

Conclusion

In the absence of any other additions to the patient's medical care, and a relatively short period, it is reasonable to propose that Chiropractic care was the causative factor in her symptom resolution. As physical or mental stress in the postpartum period has been identified as a factor in maternal-infant attachment. (11) Chiropractic has been shown to support better regulation of autonomic nervous system function which allows for such hormones to be produced, there is also the prospect of the potential impact of postpartum Chiropractic care both in the immediate future and over the life of the child.

This adds to the case report data on both postpartum chiropractic care and the mental health impacts of chiropractic care. Both areas remain underserved in terms of larger studies, and thus this case report adds to the impetus for further investigation.

Kate Clodgo-Gorden
DC
Private practice of chiropractic

Ruth Postlethwaite
BBiomedSc
Writer, ASRF

Clare McIvor
BBus(Admin),
GD Comms(ProfWrit,Edit),
GD(Psych)(Cand)
Writer, ASRF

Bruce Steinberg
DC
Private practice of chiropractic
Queensbury, NY
https://quantum-chiro.com/
drbruce@quantum-chiro.com

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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

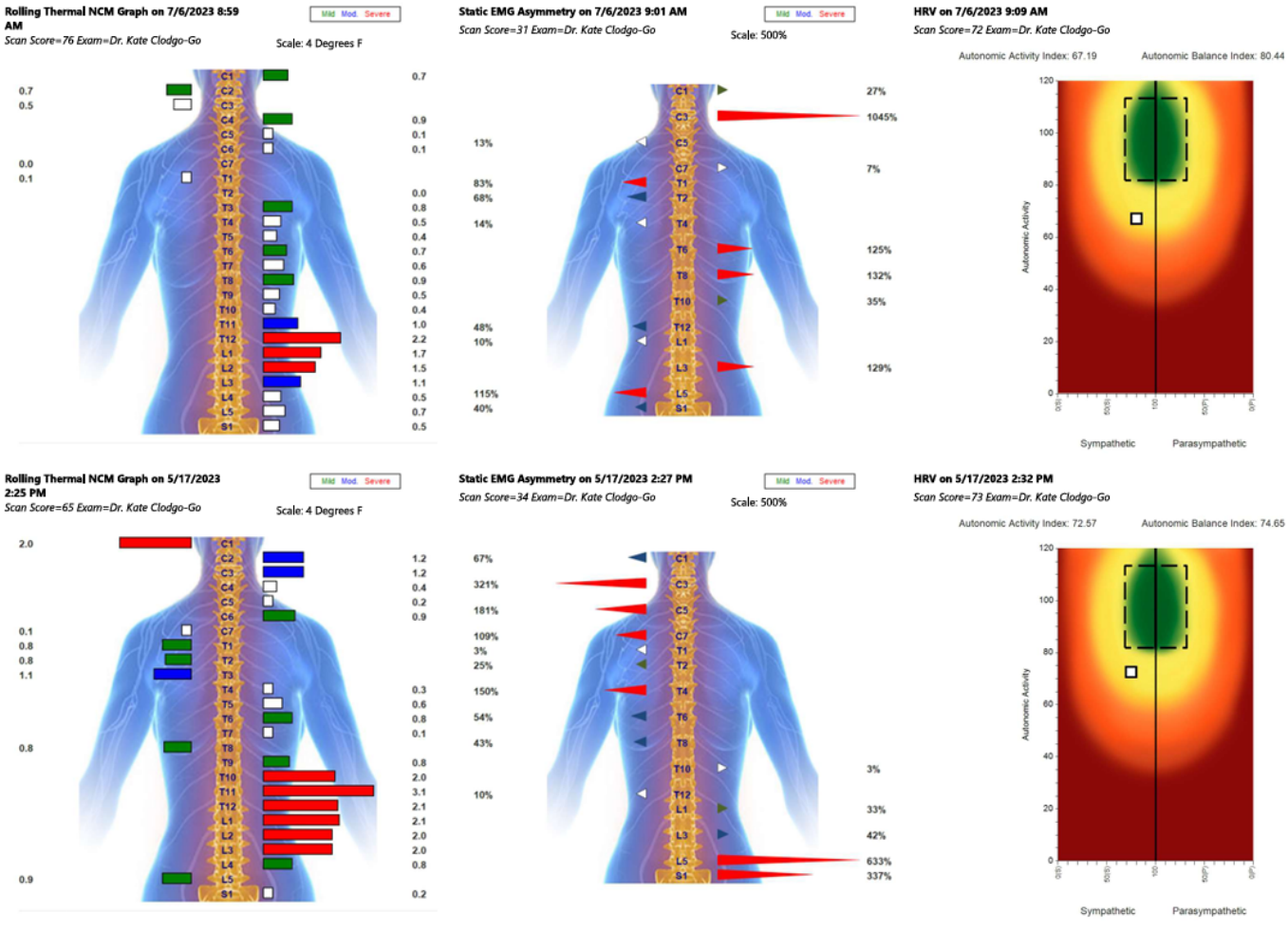
This Case Report is a part of the ASRF Case Report Project, a project designed to gather client studies from chiropractors and transform them into much-needed case reports, focused on the effects of chiropractic care on clinical presentations highly relevant to chiropractic, such as stress, immunity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

This valuable project is made possible by the generous fundraising and contributions of ASRF supporters.

ASRF definition of subluxation

'A vertebral subluxation is a diminished state of being, comprising a state of reduced coherence, altered biomechanical function, altered neurological function and altered adaptability.'

Images



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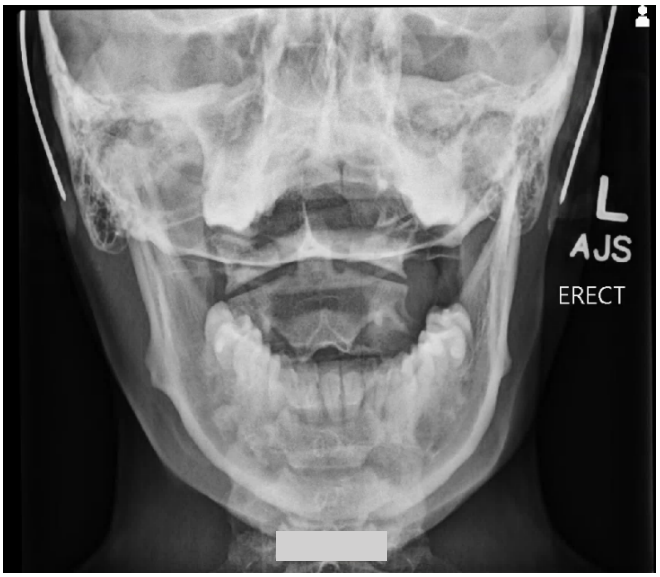
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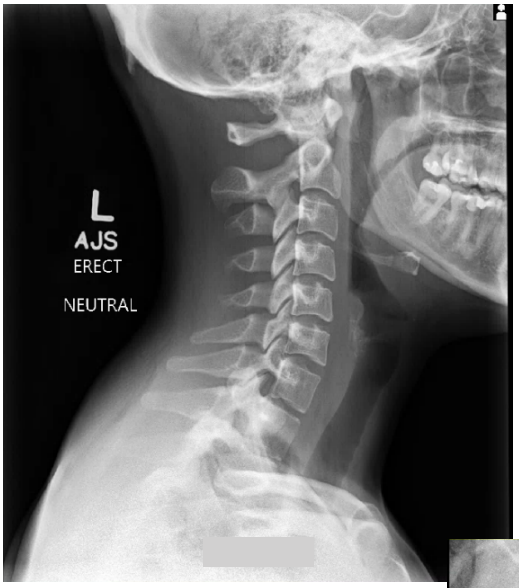
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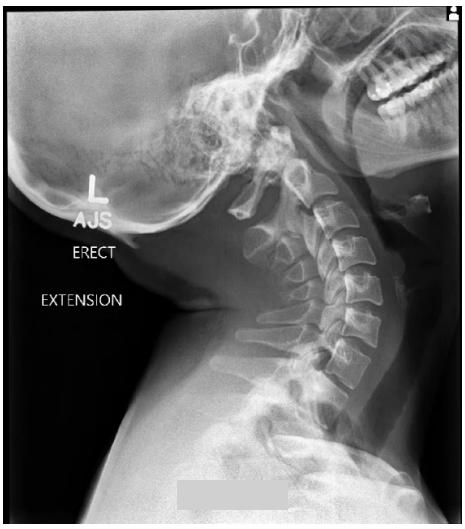
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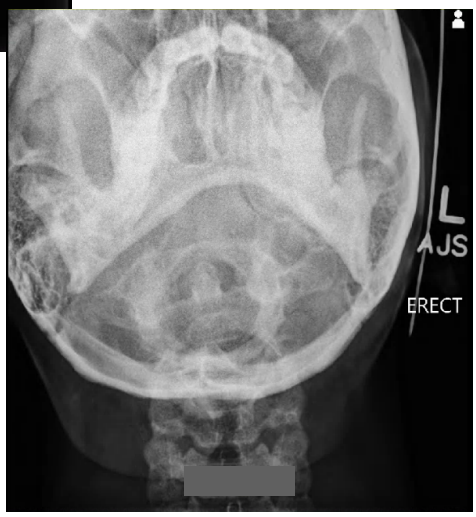
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