

Resolution of infertility concomitant with chiropractic care in a 28-year-old female: A case report

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Background: A 28-year-old female presented for chiropractic care with a chief complaint of persistent infertility. With a current and past history of chronic stress, poor weight control and metabolism, she returned positive findings for subluxation prior to the commencement of care.

Management: The patient was managed using subluxation-based Chiropractic care, with Torque Release Technique, Integrator instrument and using Pelvic Drops, SOT blocks and manual (HVLA) adjustments for a period of 12 weeks.

Outcomes: The patient was able to achieve and maintain a viable pregnancy and gave birth to her first child following Chiropractic care.

Indexing Terms: Chiropractic; Subluxation; Torque Release Technique; fertility; pregnancy

Introduction

Infertility is broadly described as a condition of the reproductive system in which there is an *'inability to conceive or an inability to carry a pregnancy to term after one year of unprotected intercourse.'* (1) While this definition is accepted across medical and health-related fields, it fails to capture the complexity that exists within the neuro-hormonal and biomechanical aspects of reproductive health that create the necessary substrates to achieve a healthy pregnancy.

Among these substrates are hormonal complications, including but not limited to *Polycystic Ovarian Syndrome*, which presents with many potential symptoms, including cutaneous presentations (Acne) and metabolic syndromes. (2) That said, it is estimated that 50% of women with the condition are not diagnosed. (3)

Diagnosing the cause of infertility is complex, as the mechanisms behind it are not fully understood. Psychological stress is thought to be a factor in many cases, but there are many possibilities that fall under this banner. The impacts of

... fertility is a complex balance of hormonal substrates and may be confounded by stress. Subluxation correction is associated with a reduction in postural imbalances and stress and in this case may have facilitated conception early in the patient's course of care'



stress on autonomic nervous system function, and on the *Hypothalamic Pituitary Adrenal Axis* (HPA-axis) or specifically the *Hypothalamic Pituitary Ovarian Axis* may also be significant in infertility. (4)

While manual therapies have long been deployed in pre-pregnancy and pregnancy care, we are yet to see research clearly defining and exploring the ways in which subluxation may influence spinal biomechanics, neuro-hormonal regulation and autonomic nervous system function in cases of infertility and female reproductive health.

This Case Report examines a case of infertility resolving concomitant with chiropractic care with a resolution of pregnancy and birth.

Case details

A 28-year-old female presented for chiropractic care with a primary concern of infertility. She also had a current and past history of chronic stress, poor metabolism and weight control, and difficulty sleeping, whereby she would often wake up stiff and tired. She was a salon owner (hair stylist) with a moderate level of daily physical activity and a limited level of experience with chiropractic care.

Notable medical history included gastric bypass surgery in October of 2017, almost four years prior to the commencement of the current care period. Additionally both the patient and her husband had undergone fertility testing to determine the viability of their eggs and sperm. She was scheduled to undergo an HSG procedure (*hysterosalpingogram*) to rule out the blockage of her fallopian tubes as a causal factor for her infertility.

Main complaints

Upon presentation to our chiropractic clinic, the patient stated that she was struggling with infertility, and anxiety, as well as a stiff neck and shoulders. She reported high levels of work, health and life related stress, and moderate levels of financial and home-related stress. The patient reported consuming a high amount of dairy, gluten and artificial sweeteners, a moderate-high amount of water, a moderate amount of sugar, alcohol and processed foods, a low amount of sugary drinks and denied using cigarettes or recreational drugs. At the time of presentation, she was regularly taking a multivitamin.

The main stated goals of care were to decrease shoulder tightness, lose weight and establish a healthier lifestyle with a view to achieving a healthy, viable pregnancy.

Prior presentations for chiropractic care dated back one year and two months, with chief complaints of intermittent shoulder pain, as well as low back and hip pain with gradual onset. These remained secondary care outcomes for the present care plan. The patient remarked that getting adjusted, resting and stretching make the problem better while bending, sitting and standing (which she does at work for more than ten hours per day) make the problem worse.

Clinical findings

Upon presentation, a thorough history and examination were undertaken, returning a range of abnormal findings.

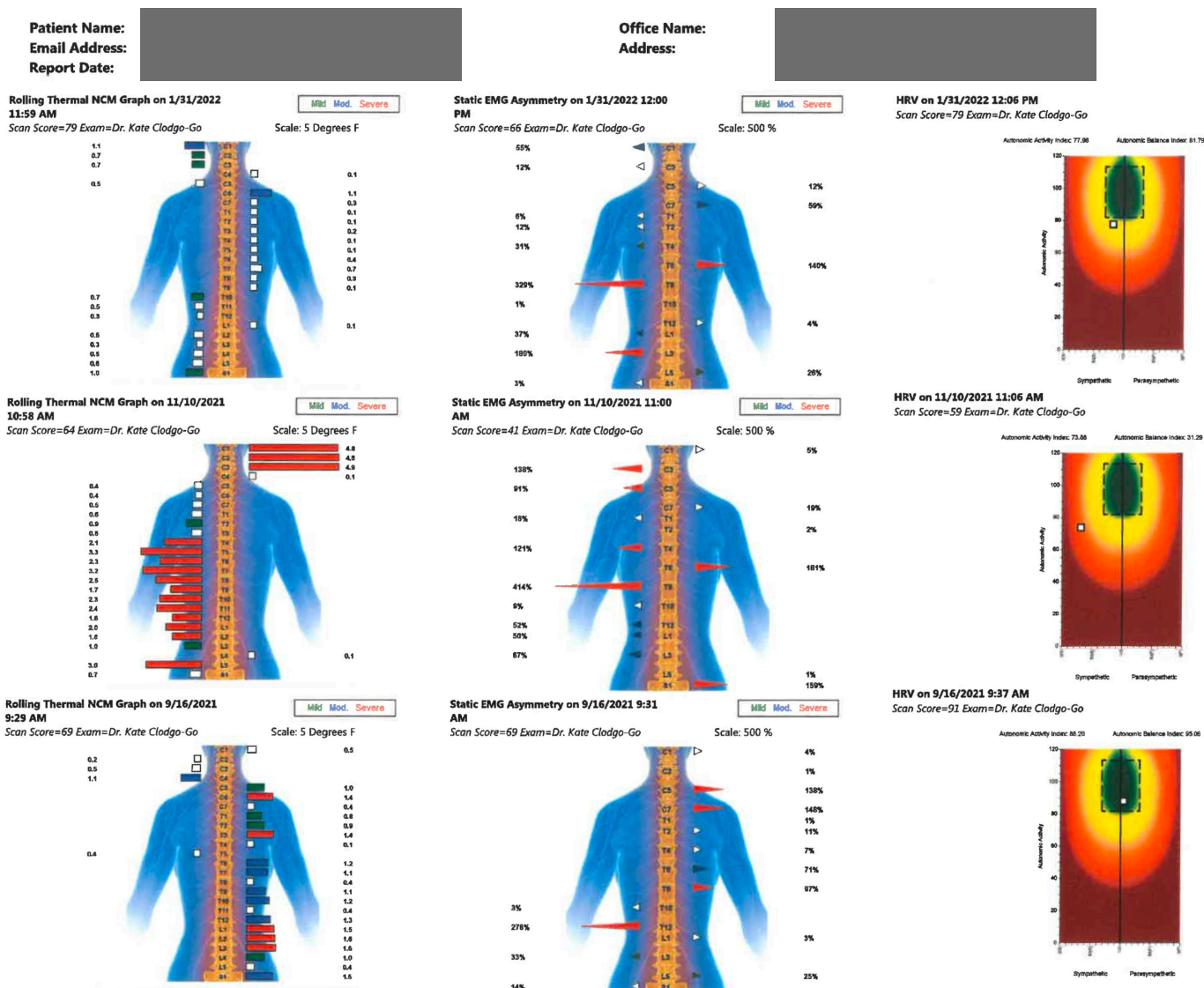
Leg length inequality tests revealed a short left leg while prone, with a length discrepancy of 1.2cm ($\frac{1}{2}$ "'). Websters and Derefield tests were both positive on the left, which coincided with a decreased left straight leg raise and decreased left sacroiliac range of motion. Romberg's tests', both with eyes open and eyes open with head in extension, were also positive on the left.

The patient returned a positive test for Cervical syndrome on the right and had a higher right shoulder and right head tilt while standing. She had a right and anterior head translation, rapid

finger movements slower on the right than on the left and her rapid open/close hands test was also slower on the right. Additionally, standing on one foot was more difficult on the right side.

Objective measures of subluxation, postural evaluation and autonomic system tone were measured using digital thermography, surface EMG, Heart Rate Variability and radiographs.

Areas of vertebral subluxation were located and analysed via Torque Release Technique with each visit. In line with this, the areas of focus were the upper cervical, lumbar and sacral areas which are also thought to be significant for parasympathetic function and for menstrual health.



Management

Given the patient’s presenting concerns and the results of her examination, the goals of care for her were established as decreasing shoulder tightness, establishing a healthier lifestyle, losing 9 to 10kg (20lbs) and being able to conceive a healthy, viable pregnancy.

Clinical care aims were targeted at improving neuro-spinal function through the reduction and correction of vertebral subluxations.

The patient commenced a 12-week course of care in which she was seen twice a week and then re-evaluated. Adjustments were delivered via Torque Release Technique (TRT), Integrator instrument and using Pelvic Drops, SOT blocks and manual (HVLA) adjustments.

Outcomes

A re-examination occurred on the 13th visit as planned. Here, objective changes in autonomic function were noted, having been measured via digital thermography, heart rate variability, and surface EMG with all improving significantly. Significant improvements in posture and head tilt were also noted at the re-examination.

Self-reported improvements from the patient included improved stamina, energy, affect (attitude) and appetite control, as well as clearer skin (the latter of which may have been indicative of improved hormonal balance, as were her weight control and metabolic issues.) However, the most significant finding for the patient was that she and her partner were now expecting, as she was five weeks pregnant. She was able to maintain the pregnancy and give birth to her first child.

The patient was thrilled that she responded so quickly and positively to chiropractic care.

Discussion

Fertility is a process that requires the proper function of the female reproductive system as well as hormonal regulation, all of which may be impacted by stress and subluxation. Given that the autonomic nervous system governs organ function, and the parasympathetic/sympathetic balance impacts hormones, it is feasible that chiropractic care and the reduction of subluxations may have contributed to an improvement in function that allowed a viable pregnancy to be achieved and maintained. In this case, clinical findings revealed that, after a short period of chiropractic care, there was a significant improvement in autonomic function as measured by surface EMG and Heart Rate Variability findings.

Additionally, postural findings at the beginning of care indicated marked imbalances, thought associated with subluxed spinal segments. These findings improved by the end of her first course of care. They are indicative of biomechanical improvements and improved subluxation findings.

Given the well-documented links between stress and poor fertility outcomes, and given the root of subluxations is thought to be trauma, toxins and stress, it is pertinent for further research into autonomic and hormonal regulation pertaining to fertility outcomes concomitant with chiropractic care.

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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 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 via 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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