

CASE STUDY

Successful Conception Following Reduction of Vertebral Subluxation in a 31 Year Old Woman: A Case Report & Selective Review of the Literature

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Abstract

Objective: This case study discusses the effect of chiropractic care for the purposes of correcting vertebral subluxations and the implications this may have on improving a couple's ability to conceive. A selective review of literature is provided on chiropractic and infertility.

Clinical Features: A 31-year-old woman presented to the office with the intent of improving overall health. Her health history included headaches, digestive complaints and SI joint pain with bending. She also had been unable to conceive after nine months of attempting to do so.

Intervention and Outcome: An initial examination of the nervous system included thermography and sEMG studies and showed poor function of the autonomic and motor nervous systems. The woman was recommended a course of care consisting of regular chiropractic visits using diversified style adjustments. After thirteen weeks of chiropractic care the patient reported two pregnancies – the first after five weeks of care, which was nonviable and the second at thirteen weeks of care, which was a successful conception. The second pregnancy was carried to term with no complications.

Conclusion: This is a case of one woman who underwent a series of chiropractic adjustments for the purpose of reducing subluxations. While under care the woman's thermographic and surface electromyographic assessments showed improvement and the woman was also able to conceive while under chiropractic care.

Key words: *Chiropractic, infertility, pregnancy, wellness, vertebral subluxation, surface electromyography, Diversified*

Introduction

A basic premise of chiropractic is that a poorly functioning nervous system can have a detrimental effect on a person's overall health and well-being. The purpose of chiropractic care is not to fix or counteract specific conditions such as infertility or any other type of condition. However, through the detection and correction of vertebral subluxations and the application of adjustments, a chiropractor restores control to the body so the person can better use his or her natural inborn

ability to self regulate and heal. Chiropractors theorize that one of the many problems a woman could have as a direct result of a poorly functioning nervous system is the inability to conceive.¹

Infertility has been estimated to affect 7.3 million American women.² A larger percentage of women become infertile as age increases and unfortunately, infertility is more severe the older a woman becomes. Only 11% of women aged 29 and younger are deemed infertile, whereas after 30 that number jumps to 17% and 22.6% after the age of 35.³ It is important

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to point this out because the majority of chiropractic literature on infertility involves women 30 years old and above, a population that has particular difficulty getting pregnant.

According to a prospective cohort study of 428 couples by Smith, et al., a substantial amount of infertile couples (29% in their study) chose to try alternatives to the traditional option of in vitro fertilization or Assistive Reproductive Technology (ART). The strongest correlations to use alternative procedures are income, increased length of time without conception and an underlying belief that those alternatives are effective.⁴

According to the medical community there are many specific causes of infertility and so there are many specific cures. It has been estimated that 70% of women having trouble conceiving have a hormonal imbalance ranging from an imbalance in ovarian function to an imbalance in the regulatory hormones in the hypothalamus or pituitary glands.^{5,6} Other causes of infertility, such as structural problems in the ovaries or uterus, can be more difficult to remedy.⁶

Infertility is defined as the inability to conceive after one year of unprotected sexual intercourse. This study discusses a case of a 31-year-old woman who had attempted to conceive for nine months. This woman began chiropractic care and after one and a half months of getting adjusted for the purpose of correcting vertebral subluxations she was able to conceive. Even people who are just having trouble conceiving and are not technically infertile seem to benefit from chiropractic care. This study contributes to the growing body of research that documents the improvements in reproductive function after the application of chiropractic care.

Case Report

History

A 31-year-old woman presented with a two-week history of SI joint pain and recent digestive problems that seemed to worsen with stress, as well as migraine headaches associated with menstruation. This patient had also unsuccessfully attempted to conceive for the past nine months and had not used any medical intervention to achieve conception. This woman had no prior pregnancies to term or miscarriages.

Examination

An initial exam was performed including two thermography studies, one surface electromyography study and spinal palpation. Thermography studies were performed using the Tytron C3000 and the Millennium Substation. Both scans showed mild asymmetries in the areas of C1, L1, L2 and L3.

An sEMG study was performed and showed abnormal readings at the levels of C1-C7, T2, T6, T10, L1, L3 and S1. Spinal palpation revealed subluxations at C1, C2, C5, C7, T2, T3, T4, T10, L2, L3 and S1. Mild subluxations were noted at C2, C5, C7, T3, T4, T10, L1, S1. More severe subluxations were noted at C1, T2, L2, L3. (Figure 1)The subluxations were listed as severe if disturbances were present in spinal levels in two to three tests that were performed to detect vertebral subluxations.

Intervention

This patient underwent an initial intensive phase of care for six weeks with a frequency of visits starting at three times per week scaling down to two visits per week. At the end of twelve visits the patient was re-examined to determine if thermographic and sEMG readings had improved. Five weeks into her care, the patient conceived; unfortunately this pregnancy was not viable and the patient miscarried two weeks later. The patient was told by her obstetrician that the pregnancy was not viable because the egg contained no genetic material - a common reason for miscarriage. At the patient's first re-evaluation, improvements were noted via instrumentation studies and in the patient's symptoms. (Figure 2)

Outcome

The patient reported that the pain in the SI joint was completely resolved and that she was no longer having migraines. She also reported that her "overall well being is more positive." Although at this point she was not pregnant, she now "saw that her body is able to conceive". After continuing on a wellness schedule for two more months at one visit per week she became pregnant again. The patient was told by her obstetrician that although her first pregnancy was not viable this second pregnancy was completely normal. This patient carried the pregnancy to term while staying on a wellness schedule of chiropractic adjustments at a frequency of one visit per week. The birth was normal with no complications.

Discussion

As of now, all chiropractic case studies on infertility have focused solely on female subjects. This runs contrary to accepted statistics that suggest 1/3rd of infertile couples are attributed to the female, while another 1/3rd involve the male and 1/3rd involve both mates or have no identifiable spouse.⁷ There is currently no large-scale study showing the success of previously infertile couples who used chiropractic care. If one was to be conducted, it would be imperative to ensure that either both partners were included in the study or that it was pre-determined that the female was the reason for the lack of conception.

Anderson-Peacock described two cases in the literature. Both women were in their mid-30's, had a history of trauma, prescription drug use, and positive subluxation findings (including thermography, surface electromyography (sEMG), radiology, range of motion, posture). Both cases showed objective improvement during their course of care and had normal pregnancies with a minor complication for one.⁸

A case described by Nadler involved a 42 year old mother of five with an irregular menstrual cycle of 24-26 days that prevented her from having intercourse due to cultural and religious reasons. Although no objective outcomes were described, after 5 weeks of Torque Release chiropractic care, the woman's cycle normalized to 29-30 days in length and she was able to conceive several months later.⁹

A case reported by Bedell described a 27 year old female with a history of two miscarriages and a complication of ulcerative colitis, a restricted diet and prescription medication. She had positive findings of subluxation including postural distortions, leg length inequality, and abnormal palpation findings. Within her first 90 days of care, objective and subjective measurements improved and she became pregnant, although the results of the pregnancy were not described in the article.¹⁰

Two cases using SOT were reported as well. Blum described the case of a 32 year old female who presented to his office complaining of colitis. She had difficulty getting pregnant for the previous 7 years, but had not disclosed that information. The patient was evaluated using only SOT methods of evaluation as detailed by DeJarnette and was placed into Category I in the SOT category system. No other evaluation methods were described, but after 7 months of chiropractic care, the subject reported that she and her husband had conceived naturally.¹¹

Rosen outlined a case of a 34 year old female who had given birth through artificial means of conception and was unsuccessful in attempting a second pregnancy. Her exam revealed she was in SOT Category II. Similar to other studies, there was a history of trauma in this patient. She also displayed decreased ranges of motion, postural abnormalities, weakness on muscle testing, and positive Yeoman's sign, Nachlas Test and Ely's Sign.

The subject reported a natural pregnancy had been achieved 4-5 weeks into a 6 week care plan laid out by Rosen. A reassessment revealed improvement in all objective measurements. No complications were reported with the pregnancy or birth.¹²

There are published case studies on the Gonstead System of adjusting, including a study by Lyons. This patient was a 27 year old female with an extensive list of complicating conditions and an inability to conceive for 5 years. She was a long distance runner, which can be considered traumatic. Initial evaluation showed thermographic disturbances and abnormal sEMG findings. Several misalignments were noted on full spine radiographs.

The patient became pregnant within one month of Gonstead chiropractic care and a reassessment showed improved thermographic values but equivocal sEMG data. Again, the pregnancy was normal and the birth uncomplicated.¹³ More recently, Gauthier described a case of primary amenorrhea in a 25 year old that resolved after several visits to a Gonstead practitioner.

History revealed that the patient had not been able to menstruate without oral contraceptive use throughout her entire life. However, after 4 Gonstead adjustments and the use of a progesterone topical cream, the patient reported a two day period of menstruation. Although the patient did not become pregnant, the case describes a woman who was not capable of becoming pregnant but was able to have normal menstruation following care.¹⁴

There are also case studies reported using the most widely-

used chiropractic adjusting protocol: Diversified. Sims described a 23 year old patient that also presented with low back pain and transient numbness into her feet. She had a history of amenorrhea and trauma in her youth. Exam revealed tender muscles, thermographic asymmetries, and lumbar spine degeneration.

After three and a half months of care, the subject reported a normal menstrual cycle and one month later had a positive pregnancy test. Instrumentation, SF-36, and QVAS outcomes showed improvements. However, technique was changed to a combination of Thompson and Webster techniques before pregnancy occurred.¹⁵

Alcantara described three cases of infertile women in their 30's who were able to conceive after undergoing a combination of diversified chiropractic, nutritional supplementation, and dietary changes. All three cases showed abnormalities in ROM, palpation, thermography, sEMG, and radiographic studies. All three cases conceived within 1-5 months of beginning chiropractic care with full term, healthy births. One case had a miscarriage before her successful birth. Two of the cases had previously attempted ART to get pregnant.¹⁶

In addition to the cases described above, there are also reports in the literature of successful pregnancies using drop technique¹⁷, Network Spinal Analysis¹⁸, Directional Non-Force Technique¹⁹, Applied Kinesiology²⁰ and Neuro-Emotional Technique.²¹ So, infertility is a common issue that chiropractors encounter in practice. Although it is not the primary goal of chiropractors to treat diseases, the evidence presented shows that conception for infertile women can occur during their course of care.

Furthermore, the literature shows that this conception has occurred using a broad array of chiropractic techniques, from no force to high force, from traditional (Gonstead) to contemporary (Network Spinal Analysis). Not only has chiropractic been shown to help infertile women alone, but also as an adjunct to traditional treatments. While large-scale studies are woefully lacking, the cases presented above and others like them give hope to future (and larger) investigations.

In a review of literature, Murphy explains that the uterus and ovaries are directly innervated by the T12 nerve roots, while the cervix and structures below it are innervated by the S2 nerve roots.²² In addition to the direct influence the nervous system displays, it also controls the distribution of hormones to reproductive structures through the hypothalamus and pituitary glands. The hypothalamus regulates the secretion of Gonadotropin-releasing hormone. This in turn determines the relative amounts of follicle stimulating hormone and leuteinizing hormone that the pituitary gland secretes.

One study published by Welch proposes that diversified chiropractic adjustments can alter the function of the autonomic nervous system.²³ Specifically, the study showed that adjustments in the cervical spine on 40 subjects resulted in increased parasympathetic activity, while thoracic adjustments increased sympathetic tone. Since the function of reproduction is controlled by the autonomic nervous system, it

is of utmost importance that this particular portion of the nervous system is working correctly. This may explain why individual case studies have shown that there may be an association between chiropractic care and the resolution of infertility as described in the review of literature above.

The chief responsibility of the nervous system is the maintenance of homeostasis and adaptability of an organism.²⁴ The nerves that supply information to and from the reproductive organs are autonomic in nature.^{25,26} Many studies suggest that when there are disturbances (subluxations) in the nerves that supply information to reproductive organs, various types of dysfunctions can occur such as dysmenorrhea, dysfunctional uterine bleeding, infertility and various other dysfunctions.²⁷⁻³¹

Current researchers seem to be moving away from viewing the body as a pre-programmed machine controlled by its genetic code. The more we look at how the human body works, the more we realize that a person's environment influences how a person's body will develop and function. This concept is so crucial to chiropractic because not only a person's environment, but how the body perceives that environment, will affect every function of the body down to the cellular level.³² (Figure 3)

When the body is, or simply believes that it is, in danger many functions will be deprioritized to ensure the survival of the organism. To initiate and maintain these unconscious changes, a person's physiology and body chemistry (hormones, neurotransmitter, cytokines, etc.) will be altered.³² The system that perceives and initiates responses to the environment is the nervous system. If that system is not functioning correctly due to vertebral subluxation, the body's perception of the environment and/or responses to that environment can be disrupted. This is part of a theory called dysafferentation detailed by Kent in 1996.³³ By correcting disturbances in a person's nervous system he or she will be better able to react and adapt to the environment.³⁴

In addition to this, the person should improve the environment that their nervous system is in. This includes positive lifestyle changes such as proper sleep, healthy food and exercise. These changes may be the catalyst to help a previously infertile woman become pregnant. This does not mean that a person should wait until they are having trouble conceiving a child to seek out chiropractic care.

Conclusion

Chiropractic care is for the purpose of correcting subluxations and restoring optimal nervous system function. It is not a treatment for infertility. However, given the direct and indirect control mechanisms that the nervous system has on the reproductive tract, chiropractic care may have an impact on the function of these structures. It is valuable to explore the effects that chiropractic adjustments have on fertility.

However, the distinction needs to be made that although there are several case studies where women conceived following the introduction of chiropractic care, it should not be utilized as a treatment for infertility. It is hypothesized that many health problems may be improved indirectly through chiropractic

care, not by counteracting the symptoms or imbalances that plague a person but by maximizing the individual's ability to heal and regulate his or her own physiology.

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Instrumentation

Figure 1 – Initial Static Electromyography Scan

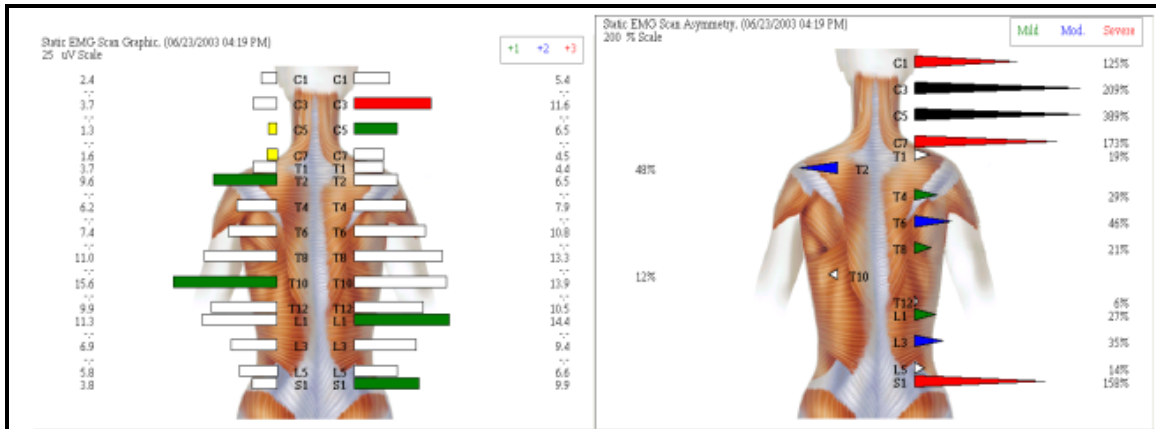


Figure 2 – Static Electromyography Scan – Re-Examine After 12 visits

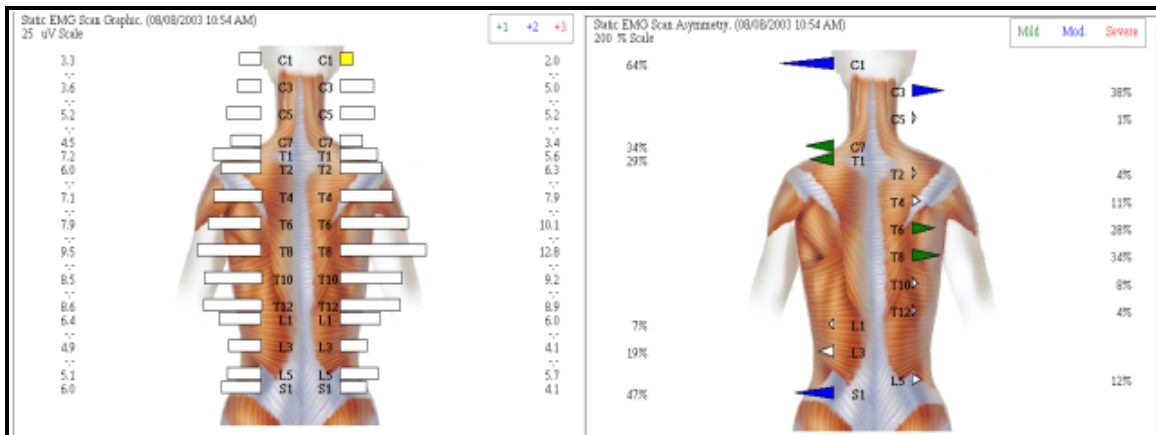
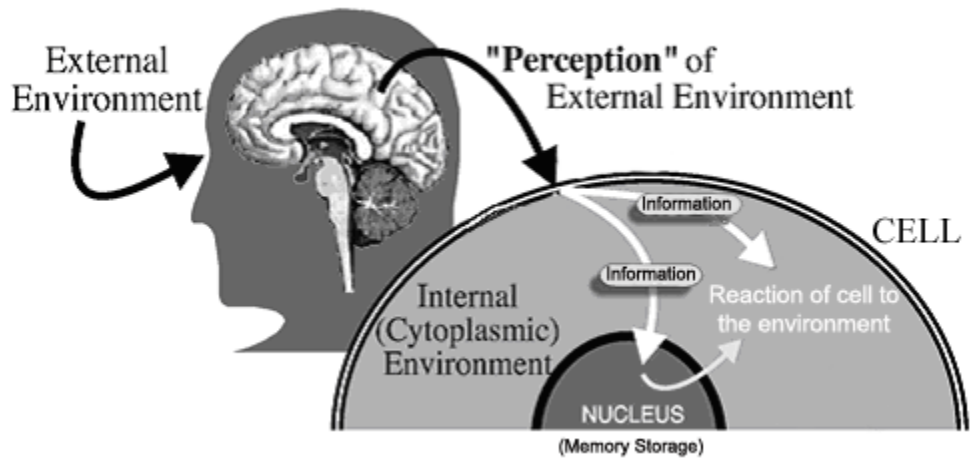


Figure 3 – How the body perceives the environment, will affect every function of the body down to the cellular level.³²



Picture altered from paper 35