CASE STUDY

Vaginal Birth After Cesarean (VBAC) in a Pregnant Woman with Placenta Previa, Migraines, Neck & Back Pain Undergoing Subluxation Centered Chiropractic

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Abstract

Objective: To describe the chiropractic care and its benefits in a pregnant woman desiring a vaginal birth after caesarean (VBAC).

Clinical Feature: A 28-year-old woman presented for care at 29 weeks gestation with her second child/pregnancy. First child was delivered via cesarean section. She had chief complaints of chronic migraines, pregnancy-related neck and back pain and ultrasound confirmed placenta previa. She also had a desire for a vaginal birth.

Intervention and Outcome: The patient was cared for with Diversified and Drop Table Technique. Following a total of six visits over a six-week time period, the patient’s presenting complaints were addressed and she had a successful VBAC.

Conclusion: This case report provides supporting evidence on the effectiveness of chiropractic care in addressing pregnancy-related complaints and beyond (i.e., facilitation of VBAC).

Key words: Pregnancy-related musculoskeletal complaints, placenta previa, VBAC, chiropractic, vertebral subluxation, cesarean section, adjustment, spinal manipulation

Introduction

The use of complementary and alternative medicine (CAM) for women and particularly for women of childbearing years and during pregnancy is substantial. A recent study examined a sample of 10,002 women found that over ⅓ of all the women used CAM during the previous year with only ½ disclosing their CAM use to conventional providers. The top reasons for CAM use were to improve general wellness or to prevent disease and to address back pain. When examining all pregnancy-related symptoms treated with CAM, no difference was found in the rates of CAM use between pregnant and non-pregnant users. Mitchell2 has found that CAM has a positive transformational effect on women’s experience of pregnancy and childbirth.

Of the practitioner-based CAM therapies, chiropractic is popular for adults and children. Given the popularity of chiropractic for the care of adults with neck and low back pain,3 and that more women use chiropractic services than men,4 it stands to reason that chiropractic services would be utilized by pregnant women.5 Indeed, recent publications point to the effectiveness of chiropractic during pregnancy.6-8

In an on-going effort to document the chiropractic care of pregnant patients, we describe the care of such a patient presenting with pregnancy-related spinal pain, chronic migraines, placenta previa and the wish for vaginal birth after caesarean (VBAC).

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Case Report Narrative

A 28-year-old woman presented for chiropractic consultation and possible care at 29 weeks gestation with her second child/pregnancy. Her chief complaints were a history of chronic migraines associated with neck and back pain. She also stated that her first child was born via an emergency C-section after laboring for three days and not progressing past 5-cm. She stated that her first baby was quite large. In addition to the above stated complaints, the patient was hoping for a VBAC. Lastly, she stated that ultrasound (US) imaging revealed placenta previa with her current pregnancy.

The history and examination findings were notable with the following findings. The patient’s migraines began at 8 years of age with intermittent chiropractic care in the past 10 years with no resolution to her headaches. She characterized her headaches as severe in pain intensity while her neck and back pain was described as a dull ache. Not surprisingly, her neck and back pain were commensurate with her recent pregnancy with massage providing only temporary relief.

With the patient prone, static and dynamic palpation revealed fixations, muscle guarding and palpatory tenderness at the C2, C3, T2, T3, and T4 vertebral levels at the spinous process and paraspinal musculature. A positive Derefield was noted on the right side indicative/interpreted as a posterior right inferior ilium. Surface electromyogram (sEMG) revealed elevated muscle tension at the C3, C5, C7, T1, T2 and T3 paraspinal musculature while thermography instrumentation revealed temperature imbalance at the C5, T5, T7, T8 and T9.

The patient was apprised of the clinical findings and consented to a trial of chiropractic care. Adjustments were performed with subluxation findings of the right sacro-iliac (SI) joint, the C2, C3 and T2-4 vertebral bodies using Diversified Technique. The right SI joint was adjusted with the client prone on pregnancy pillows with drop table adjustment while C2 and C3 subluxations were adjusted with the client supine using Diversified Rotary Break. The subluxations at T2-4 were addressed with Diversified Technique using a dorsal adjustment. The patient attended a total of six visits over a 6-week time period.

Following three visits over a 10-day span, the client reported having her migraines resolved. After the 4th visit, the patient’s placenta previa resolved as confirmed on US imaging. Following the trial of care as described, the patient had a successful VBAC. The client reported no complications or the use of medications and a faster labor. At a follow-up visit one month after giving birth, the client continued to be migraine-free with complaints of a sore neck and upper back from holding/breastfeeding her baby.

Discussion

As highlighted in this case report, the complexity of chiropractic care of pregnant patients go beyond just the mere care of musculoskeletal complaints. Our discussion will focus on the chiropractic care provided in the context of the patient’s presenting complaints and co-morbidities.

Pregnancy-related spinal pain

Recently, the brothers Alcantara9 examined the use of validated outcome measures in the chiropractic care of pregnant patients. Their review highlights the care of pregnant patients with pregnancy-related musculoskeletal pain (i.e., neck and low back pain) and despite inconsistent use of valid outcome measures, they demonstrated effectiveness on the part of chiropractic. The authors found five prospective in nature6,10-13 two retrospective14-15 while one involved a randomized clinical trial.7

Chronic migraines

Despite reported migraine headaches during pregnancy; in general, pregnancy confers improvements in headache frequency and severity. The improvements have been attributed to the absence of hormone fluctuations16 and/or to the analgesic effects of β-endorphins, which are found to increase during pregnancy.16-17 These improvements are particularly observed for those with migraines without aura, when the headache is menstrual-related or when the first onset of the attack is linked to menarche.18 For the patient presented, her headache complaints did not improve by her 3rd trimester. In such a situation, if the improvement is not seen by this time during her pregnancy, it is thought less likely to improve thereafter.19 Conversely, migraine has been reported to be experienced for the first time during pregnancy18,20 while approximately 4%-8% of pregnant women report worsening of headache symptoms, particularly for those with migraine with aura. Others have reported this prevalence to be as high as 30-40%.21-23

Alcantara and Cossette24 performed a selective review of the literature review to augment their case report on the care of pregnant women with intractable migraine headaches. The authors consulted PubMed [1966-2007] using the subject search terms “pregnancy AND headaches AND chiropractic” while MANTIS [1965-2007] was consulted using the search term “pregnancy AND headaches” in the Title & Abstract, specific to the chiropractic discipline and the English language. The authors were the first to describe such a case scenario. They described the care of a 24-year-old gravid female with chronic migraine headaches since age 12 years. Previous unsuccessful care included osteopathy, physical therapy, massage and medication. Non-steroidal anti-inflammatory medication with codeine provided minor and temporary relief. Chiropractic care involving spinal adjustment and adjunctive therapies resulted in symptom improvement and independence from medication.

Using similar strategy protocols as described above, we found the study by Edwards and Alcantara (2015)25 describing the care of a 28-year-old woman at 14 weeks gestation presenting for care with migraine headaches, hypothryoidism and tachycardia. During care, the patient experienced visual field disturbances and neurological deficits in the face and upper extremities. The patient was cared for with Gonstead Technique, Thompson Drop, and Webster Technique. She attended care for a total of 33 visits of seven months duration. The result was a successful trial of labor at 40 weeks plus four days and delivery of a healthy baby girl. To the best of our knowledge, this is the 3rd reporting in the scientific literature on the successful care of a pregnant patient with
intractable migraine headaches.

**Placenta Previa**

In placenta previa, the placenta lies within the lower segment of the uterus, presenting an obstruction to the cervix and is a potentially severe obstetric complication. The overall prevalence of placenta previa has been estimated at 5.2 per 1000 pregnancies with regional variation indicating highest among Asian studies (i.e., 12.2 per 1000 pregnancies) and lower among Europeans (i.e., 3.6 per 1000 pregnancies), North Americans (i.e., 2.9 per 1000 pregnancies) and Sub-Saharan Africans (i.e., 2.7 per 1000 pregnancies). As in the patient described in this case report, risk factors for placenta previa include prior cesarean delivery as well as pregnancy termination, intraterine surgery, smoking, multifetal gestation, increasing parity and maternal age. Diagnostic confirmation is via transvaginal ultrasonography and the threshold for vaginal delivery is when the placenta to cervical os distance is greater than 2 cm. Recently, Edwards and Alcantara described the care of a 32-year-old multiparous woman who presented for chiropractic care in her 32nd week of pregnancy. She was referred for chiropractic care by her midwife and obstetrician after ultrasound imaging confirmed both breech fetal positioning and placenta previa. Following her 10th chiropractic visit, ultrasound imaging confirmed a fetal vertex position with her placenta migrating to more than 3 cm away from the os of the cervix. The patient delivered (VBAC) a healthy baby without complication. Edwards and Alcantara were the first to challenge the notion that spinal adjustments to the pregnant woman with placenta previa is an absolute contraindication. Insofar as we can tell, this unsupported claim was made by Wiles and perpetuated by Borggren and Zerdecki. This is the second case reporting in the peer-reviewed literature to challenge this clinically unsubstantiated notion in the care of pregnant patients.

**VBAC**

The desire to have a vaginal birth confers a quicker post-birth recovery, decreased surgical trauma and rates of endometritis, decreased hospital stay, and improved feelings of wellness for women. With repeated Caesareans, risks involved include repeated surgical trauma, placenta previa and accreta, and hysterectomy. Edwards and Alcantara described the care of a patient with reported attempted trial of labor after cesarean (TOLAC) with successful outcomes (i.e., VBAC - “successful” trial of labor resulting in a vaginal birth). In 2008, Alcantara and Hamel described the chiropractic care of a 29-year-old gravida female with complaints of low back pain. The patient had two surgical Caesarean deliveries with her two previous births due to “failure to advance during labor and associated fetal distress.” The patient’s low back complaints were ameliorated along with a successful vaginal birth. To date, this is the 3rd description in the peer-reviewed literature on successful VBAC following chiropractic care.

In closing, we wish to acknowledge the traditional caveats regarding case reports. From a post-positivist perspective, generalizability of case reports are challenged due to the presence of bias (i.e., lack of a control group, spontaneous remission, self-limiting course and natural history of the disorder, subjective validation, and expectations for clinical resolution on the part of the patient). However, from a constructivist point of view where experience shapes reality, our clinical experiences provides us the knowledge to form the basis for our generalization in caring for patients with similar presenting complaints.

**Conclusion**

We described the successful care of a pregnant patient presenting with a chief complaint of chronic migraines and pregnancy-related neck and back pain. This case report highlights benefits of chiropractic care beyond symptom care with resolution of placenta previa and successful VBAC. We support continued research in the care of pregnant women.

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