9th Annual International Research and Philosophy Symposium Sherman College of Chiropractic Spartanburg, South Carolina October 20-21, 2012

W. Decken
H. Feenstra
E. Remeta
C. Blum
H. Getzoff
R. Sinnott
C. Woodfield
M. Lenarz
A. Klassen
M. Dickholtz
H. Getzoff
J. Van Dyke
B. Bowler
K. Conlen
J. Hart
H. Schafer
R. McArthur
V. Schafer
K. Lumb
E. Zielinski
N. Blume
R. Grostic
T. VanDervort
J. VanDervort
S. Borkhuis
C. Perkins
M. Beebe
R. Castellucci
J. Lovejoy
S. Senzon
T. Rohrbach
D. Knowles
R. Knowles
C. Vaden
J. Sayers
J. Holder
J. Donofrio
M. McCoy
J. Alcantara
S. Tullius
A. Burnier
C. Kent

Abstract (List of Papers)

- Subluxation Communication Research Project: May 2012
- Integrating Temporal-Sphenoid Reflexes, Sacro-Occipital Technique Procedures, and Reflexology for Treatment of Chronic Cervical Pain and Reduced Range of Motion: A Report of Two Cases
- Chiropractic Cranial Treatment Protocol Increases Successful Outcome of the Multidisciplinary Care Model for Traumatic Brain Injury (TBI) Patients: A Case Series
- SOT: Category Three: Predictability Outcomes: A Case Series
- Resolution of Nocturnal Enuresis in Five Individual Cases, Following Chiropractic Adjustment to Correct Vetebral Subluxation
- Subluxation Reduction Demonstrated in 'After-correction' Blair Protractoviews
- Subluxation Based National Upper Cervical Chiropractic Association (NUCCA) Care for Temporomandibular (TMJ) Pain
- Sitting Disc Technique and the Relationship to the Straight Leg Raise: A Retrospective Case Series of Thirty Patients
- Chiropractic and Epilepsy
- A Lexicon for Structural Hygiene for the Developing Human User-Friendly Analysis of Neurological Interference Component of the Vertebral Subluxation: A Case Study
- User-Friendly Analysis of the Neurological Interference Component of the Vertebral Subluxation: A Case Study
- Regional Synchronization Method: Predicting Vertebral Misalignment Patterns to Provide a More Effective Treatment
- The Effects of Network Spinal Analysis on Children Diagnosed with Autism Spectrum Disorder with Accompanying Speech and Language Deficits
- Determining Relative Motion Between Occ-C1-C2 using the Base Posterior Spinographic Model on a Single Case
- An Epidemiological Approach to the Effects Subluxation-Based Chiropractic Care has on Managing CVD Risk Factors: A Case Study and Review of Literature
- The Effects of Grostic Upper Cervical Care on CVD Risk Factors: A Pilot Study
- Interference to the Transmission of the Mental Impulse, also known as Dysponesis
- A Case for "Expression" as a Major Concept in Understanding Chiropractic
- Straight Mixers and Mixed up Straights: The End of the Straight/Mixer Dichotomy. An Exploration of Terminology to Describe Different Types of Chiropractors
- An Epidemiological Approach to the Effects Subluxation-Based Chiropractic Care had in Managing a Three Year Old Girl with Autism, Acid Reflux, Bilateral Head Pain, Seizures, and Vomiting: A Case Study and Review of Literature
- Correlation between Heart Rate Variability and Novel, User-Friendly Pulse Rate Variability Methods
- Upper Cervical Chiropractic Care for Chronic Migraines and Vertigo: A Case Report
- Resolution of Colic in an Eight Week Old Infant Undergoing Chiropractic Care: A Case Study
- Chiro-Dentity and Our Lexicon
- How Complexity of Thinking has Shaped Chiropractic's Philosophy
- Restoration of the Cervical Curve and Improvement in Neurological Function in a Patient Following Network Spinal Analysis
- P300 Wave Outcomes; Subluxation Based Chiropractic in Residential Addiction Treatment; Review of Outcomes from a Randomized Controlled
- Incorporating Salutogenesis in a New Chiropractic Paradigm
- The Stance of the Chiropractic Profession on Current Events Attitudes of Students and Recent Graduates of Chiropractic Educational Programs Regarding Curricular Content, Preparation for Practice and the Future of the Chiropractic Profession: A Delphi Consensus Process & Survey
- A New Direction in Chiropractic Education

Subluxation Communication Research Project
May 2012

William M. Decken, D.C.

Purpose:

1. To determine which percentage of chiropractors using websites discuss subluxation on their websites.
2. To determine how subluxation is being discussed on the websites that mention subluxation.

Method:

1. Assemble a team that will perform a Google search looking for chiropractic office websites in each state.
2. The first 20 websites in each state will be selected. The goal being 1,000 offices.
3. Assessment as to how subluxation is discussed will be made
4. Assessment of Subluxation:
    a. Yes or no
    b. If yes:
        i. with a metaphysical component
        ii. with a biomechanical component
        iii. with a symptomatic component
        iv. with a neurological component
        v. with regards to vertebral subluxation complex
        vi. using ACC paradigm definition

Data: Tables will be provided

Conclusion: Comparison will be made to the Ohio study and the 2012 CCE standards.

Discussion: To strengths and weaknesses will be mentioned.

References: Appropriate references will be included and provided.

Integrating temporal-sphenoid reflexes, sacro-occipital technique procedures, and reflexology for treatment of chronic cervical pain and reduced range of motion: A report of two cases.

Harvey J. Feenstra, D.C. & Charles L. Blum, D.C.

Abstract

Introduction: The purpose of the following two case studies was to investigate how a combination of temporal sphenoidal (TS) reflexes, chiropractic manipulation, viscerosomatic reflexes, and foot reflexology could have a positive effect on cervical spine range of motion.

Case Reports: Case #1 involved a 38-year-old female with chronic (17-years duration) neck and low back pain. Case #2 involved a 43 year old male presenting with chronic (6-months) neck and low back pain with limited cervical range of motion.

Methods/Intervention: Treatment utilized sacro occipital technique (SOT) protocols, TS reflexes, cervical manipulation, and foot reflexology to treat chronic cervical pain associated with limited range of motion.

Results: Case #1, following the first treatment noted full range of motion in all directions and the presenting pain reduced from an 8 to a 3 on a pain scale of 1-10. Case #2 received 11 treatments over a 3-4 week period of time and by the 11th office visit right lateral flexion was full and presenting pain was reduced from an 7 to a 2-3, all other motions were full and pain free.

Conclusion: Further research is indicated with a larger sample and more outcome assessment tools to further investigate this method of care.

References: Please see the end of the following full text submission.

Introduction

Neck pain is a common disorder.[1-5] About 70% of adults will experience neck pain during their lifetime, and its point prevalence in the general population is around 22%.[1,2,,4,5] After low back pain, neck pain is the most common reason patients give for seeking chiropractic care, and the second most common reason for the use of spinal manipulation.[1,6,7] Treatment of neck pain is costly in terms of utilization of health care services, disability, compensation payments and lost work productivity.[7,8]

The cause of neck pain is multifactorial and can be due to musculoskeletal conditions, trauma, systemic conditions, infections, inflammatory conditions or neoplasm.[1,4] Usually, the underlying cause of neck pain is non-specific and cannot be related to a particular pathology as a cause of the presenting symptoms.[4,5] Numerous reviews [2,3, 9-11] have assessed the evidence for the effectiveness of cervical spine manipulation and mobilization in the treatment of non-specific neck pain with mixed results.[1] Very few clinical trials have studied manual therapy for subacute neck pain [8,12-14], with the research emphasis being placed on those subjects with complaints lasting for longer than 6 months.[14]

There is much discussion in the literature about the risk of stroke caused by cervical manipulation; however, Cassidy et al. [15] found the risk of stroke associated with GP or chiropractor visits was equal[1]. This suggests that cervical manipulation may not be a cause of stroke, but associated with a stroke in progress. Chiropractors need to be aware that some patient's presenting with head or neck pain, may have a stroke in progress.[16]

Welcha and Boone suggest that cervical adjustments may result in parasympathetic responses, whereas thoracic adjustments result in sympathetic responses[17]. Historically chiropractors have suggested the positive effects of chiropractic adjustments on musculoskeletal and visceral health.[18-20] Some studies have investigated chiropractic vertebral subluxation, spinal manipulative therapy, and cranial adjusting in relation to autonomic function. [17-30]

The purpose of the following two case studies was to investigate how a novel combination of temporal sphenoidal reflexes, chiropractic manipulation, viscerosomatic reflexes, and foot reflexology could have a positive effect on cervical spine range of motion. [31-3]

Case Reports

Case #1 involved a 38 year old female with chronic (17 years duration) neck and low back pain. She demonstrated limited cervical range of motion unresponsive to multiple prior interventions. Cervical range of motion evaluated flexion, extension, right and left

lateral flexion and rotation. Prior to the adjustive procedure, the patient had marked restriction of range of motion and noted exquisite pain when limits of range of motion were reached in all directions.

Case #2 involved a 43 year old male presenting with chronic (6 months) neck and low back pain with limited cervical range of motion. Cervical range of motion evaluated flexion, extension, right and left lateral flexion and rotation. Prior to the adjustive procedure, the patient had marked restriction and noted exquisite pain in the upper thoracic spine on right lateral flexion and left rotation restrictions which produced significant pain generalized to the cervical spine.

Methods/Intervention

This novel intervention utilizes sacro occipital technique (SOT) protocols for analysis and treatment, temporal sphenoidal (TS) reflexes, cervical manipulation, and foot reflexology to treat chronic cervical pain associated with limited range of motion.

A general assessment of lumbar range of motion is assessed initially. SOT Category II protocols are performed, as appropriate, including a rib cage assessment by stretching the patients arms over their heads. If there is reduced motion on one or both sides, this is treated by releasing the ipsilateral psoas or sometimes also the quadratus lumborum muscles. Then the patient's pelvis is assessed for torsion and any sacroiliac joint instability (category two). If a category two imbalance is found then that is treated before proceeding to the cervical spine.

The cervical spine is analyzed with the patient supine. Sidebending the head right and left is performed. The side that has no side bend or shows restriction (lateral flexion only not rotation) is chosen as the posterior cervical side. The posterior cervical side is then rotated to the opposite side and the doctor palpates for intersegmental muscular congestion, swollen facets or painful articular facets.

Once the most painful cervical articular facet is identified, the head is turned toward the opposite side. TS reflex points are palpated searching for the most sensitive point (e.g., Cervical 3 would relate to either Thoracic 4 or 5, or Lumbar 1) as determined by patient sensitivity to palpation.

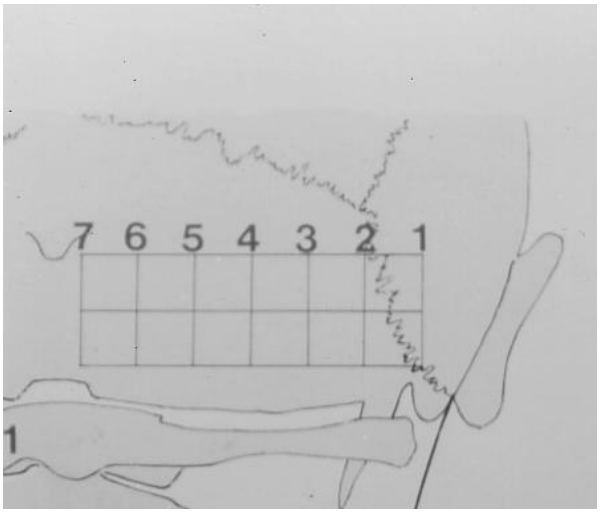
The region of cervical vertebra congestion is held in the downward position with the head turned so the TS reflex region is placed upwards. The doctor manipulates the tender TS reflex approximately 15 seconds and then has the patient give a deep cough. This is repeated until sensitivity at the TS reflex point is relieved, which usually takes less than a minute.

With the head turned away from the posterior cervical side, have the patient look down towards their feet as the head is moved slightly into flexion while exhaling. A cervical adjustment is made as the patient moves their head upward and looks at the doctor's eyes while inhaling.

Utilizing the occipital fiber CMRT relationship and TS reflex point relationship, a specific organ will be determined to be used with the foot reflexology aspect of the treatment protocol. Generally these point(s) will be very painful. They are manipulated with pressure for about 15 seconds followed by having the patient cough. The manipulation and coughing are repeated until the pain is gone, approximately 1-2 minutes, at which time the other foot is evaluated and treated in the same manner.

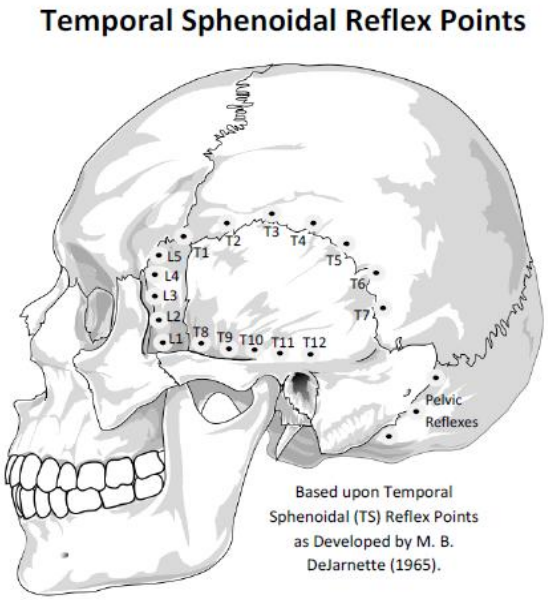
Chiropractic *Manipulative* Reflex Technique

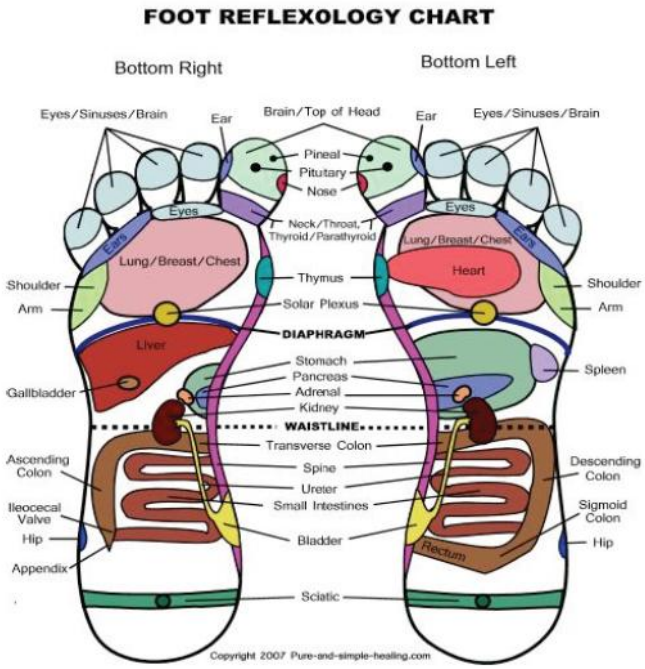
Cervical Vertebra - Occipital Fiber – Line Two - Fiber Association



Fiber 1: T1 (cardiac), T2 (myocardial), and T10 (intestinal) = **C1**
Fiber 2: T3 (respiratory), T11-12 (kidney) = **C2**
Fiber 3: T4 (gall bladder), T5 (gastric), and L1 (ileocecal) = **C3**
Fiber 4: T6 (pancreas) and L2 (cecal) = **C4**
Fiber 5: T7 (spleen) and L3 (glandular) = **C5**
Fiber 6: T8 (liver) and L4 (colon) = **C6**
Fiber 7: T9 (adrenal) and L5 (prostate/uterus) = **C7**

Maintaining the same position as when manipulating the TS reflex the head is maintained in this same position and the cervical spine is then adjusted in the following manner. Initially the patient is instructed to look footward, tilting chin downward, and exhale and then have the patient look upward, tilting chin upward, and inhale. At the instant the patient inhales and both tilts head and looks upward the doctor makes the cervical adjustment. If the patient prefers the doctor can also adjust the cervical spine using SOT's cervical stairstep procedure.





Once completed, the patient's lumbar and cervical ranges of motion are re-assessed and compared to their initial presentation.

Specific care for case #1 involved releasing any imbalance in the psoas and supine pelvis (category two). Cervical congestion was found at C4 bilaterally, with a TS reflex point on the contralateral side at the T6 region also bilaterally and the TS reflex points were manipulated until no longer sensitive. C4 was adjusted on the right and left side and associated T6 reflex. Per DeJarnette's protocol, CMRT procedures for the pancreas were performed along with related foot reflexology points related to the pancreas.

Specific care for case #2 involved releasing any imbalance in the psoas and supine pelvis (category two). Cervical congestion was found at C7 on the right, with a TS reflex point on the contralateral side at the T9 region on the left which was manipulated for 15 seconds and having the patient cough until TS reflex sensitivity was eliminated. In retesting right lateral flexion, the patient still reported upper thoracic pain. Therefore, occipital fibers were assessed and an area one, fiber 7 was noted on the left without sensitivity. Occipital fiber technique adjustment was used to T2 on the right and CMRT myocardial reflex work was utilized. Foot reflexology for the heart reflex (area below the little toe) on the right was very sensitive. After 15 seconds of stimulation, the foot reflex became non-painful. Cervical reflex area lateral side of "big toe" was also very painful. After 1 ½ to 2 minutes of manipulation this reflex point also became non-painful.

Results

The patient in case #1, following the first treatment, had her cervical range of motion reassessed. Full range of motion was noted in all directions and the presenting pain (8 on a pain scale of 1-10) was reduced to "soreness" (3 on a pain scale of 1-10). The patient in case #2 received 11 treatments over a 3-4 week period of time. By the 11th office visit right lateral flexion was full, but instead of pain in the upper thoracic (7 on a pain scale of 1-10) the discomfort was reduced to "soreness" (2-3 on a pain scale of 1-10). Left rotation was full without any discomfort. All other motions were full and pain free.

Discussion

In both cases the patients presented with long term cervical spine discomfort and limited range of motion that improved following treatment. Clinically attempts have been made to add or eliminate one or other aspect to the presented method, but what has been presented appears to be consistently effective for the treatment of chronic cervical spine pain with associated limited range of motion. This improvement in pain and increase in range of motion has been found to be an effective tool to assess patient progress and response to care in the long term.[34]

There have been studies that have demonstrated a relationship between cervical spine manipulations and improved cervical range of motion.[31-3] A relationship between the cervical spine and sacroiliac joint and a relationship between a category two (sacroiliac instability) and cervical spine extensor isometric strength[36] and lumbar range of motion[37] have been discussed in the literature.[35] Temporal-sphenoidal (TS) lines or reflexes was first introduced by M. B. DeJarnette in 1965[38] and later further investigated and developed by M. L. Rees. DeJarnette had already investigated and developed reflex methods of analyzing patterns of vertebral imbalance using trapezius[39] and occipital fiber palpation[40] and treatment methods. The TS reflex was an additional tool using patient's report of pain to palpation at a region surrounding the temporal and greater wing of the sphenoid, essentially the region of temporalis muscle insertion. He postulated that sensitivity at specific points superior portion of the temporalis muscle insertion near the squamous portion related to thoracic 1 through 7 (anterior to posterior) whereas thoracic 8 through 12 (anterior to posterior related to regions near the temporal eminence towards the mastoid process. The anterior portion of the greater wing of the sphenoid related to lumbar vertebra 1 through 5 (inferior to superior) and sensitivity at the occipitomastoid suture to the parietomastoid suture regions was related to the pelvis.[38]

The thoracic and lumbar points of sensitivity along the TS lines were determined by DeJarnette and Rees to have a relationship to DeJarnette's occipital fiber vertebral relationships as described in chiropractic manipulative reflex technique (CMRT).[41] CMRT methods have been gaining evidence in recent years as evidenced by studies on animals,[42, 43] a patient with situs inversus,[44] a controlled clinical pilot study,[45] and a small randomized controlled study.[46]

As chiropractors have been exploring the treatment of nonmusculoskeletal conditions with manipulative procedures,[47] incorporating foot reflexology into a patient clinical encounter seemed reasonable. Foot reflexology treatments apply pressure to specific points or areas of the feet. According to the principles of reflexology, areas of the feet correspond to different parts of the body, and applying pressure to these areas can affect the corresponding parts of the body. In some cases, pressure may also be applied to the hands or ears.[48]

For thousands of years, techniques similar to reflexology have been used in Egypt and China. A technique called "zone therapy" was developed in the early 20th century by an American physician named William Fitzgerald. Dr. Fitzgerald suggested that maps of the foot could be used to diagnose and treat medical conditions. He divided the body into 10 zones and labeled what he believed to be the corresponding parts of the foot. He proposed that gentle pressure on the foot could bring relief to the corresponding zone.[48]

In the 1930s, Eunice Ingham, a nurse and physiotherapist, further developed these maps to include specific reflex points. Zone therapy was renamed reflexology. Reflexology charts have diagrams of the feet with corresponding parts of the body. The right foot corresponds to the right side of the body, and the left foot corresponds to the left side.[48]

Evidence for this method of care is limited but studies suggesting its effectiveness are slowly emerging. Recent research has found foot reflexology helpful in treating specific female conditions,[49-51] respiratory disorders,[59-61] various other disorders,[62-69] and as a part of oncology treatment.[52-58]

As with any case report or series, without a control group or comparison intervention, it is difficult to rule out regression to the mean, ideomotor, or placebo effects. However, the chronicity of the patient's presentation, the previous unsuccessful methods attempted to resolve their condition, and the successful response to the specific intervention makes compelling evidence for further study.

Conclusion

These case reports illustrate one patient who had chronic cervical spine pain and limited range of motion for 17 years (case #1) and another for 6 months (case #2) who both responded favorably to SOT category two treatment, TS reflex and cervical manipulation as well as foot reflexology. Further research is indicated for a larger sample with control group, and comparison interventions. Greater outcome assessment tools involving pre and post neck disability index forms and a reliable range of motion assessment tool would be useful.

References

1. Gemmell H, Miller P. Relative effectiveness and adverse effects of cervical manipulation, mobilisation and the activator instrument in patients with sub-acute non-specific neck pain: results from a stopped randomised trial. Chiropr Osteopat. 2010; 18: 20.
2. Aker PD, Gross AR, Goldsmith CH. Conservative management of mechanical neck pain: systematic review and meta-analysis. BMJ. 1996;313:1291–1296.
3. Gross AR, Hoving JL, Haines TA, Goldsmith CH, Ka T, Aker P, Bronfort G. A Cochrane review of manipulation and mobilisation for mechanical neck disorders. Spine. 2004;29:1541–1548.
4. Tseng YL, Wang WTJ, Chen WY, Hou TJ, Chan TC, Lau FK. Predictors for the immediate responders to cervical manipulation in patients with neck pain. Manual Therapy. 2006;11:306–315.

5. Cassidy JD, Lopes AA, Yong-Hing K. The immediate effect of manipulation versus mobilisation on pain and range of motion in the cervical spine. J Manipulative Physiol Ther. 1992;15:570–575.
6. Bale A, Newell D. Chiropractic for neck pain: a pilot study examining whether the duration of the pain affects the clinical outcome. Clinical Chiropractic. 2005;8:179–188.
7. Hurwitz EL, Coulter ID, Adams AH, Genovese BJ, Shekelle PG. Use of chiropractic services from 1985 through 1991 in the United States and Canada. Am J Public Health. 1998;88:771–776.
8. Coulter ID, Hurwitz EL, Adams AH, Genovese BJ, Hays R, Shekelle PG. Patients using chiropractors in North America: who are they, and why are they in chiropractic care? Spine. 2002;27:291–298.
9. Hurwitz EL, Aker PD, Adams AH, Meeker WC, Shekelle PG, Barr SS. Manipulation and mobilisation of the cervical spine. A systematic review of the literature. Spine. 1996;21:1746–1760.
10. Koes BW, Assendelft WJJJ, van der Heijden GJMG, Bouter LM, Knipschild PG. Spinal manipulation and mobilisation for back and neck pain: a blinded review. BMJ. 1991;303:1298–1303.
11. Bronfort G, Haas M, Evans RL, Bouter LM. Efficacy of spinal manipulation and mobilisation for low back pain and neck pain: a systematic review and best evidence synthesis. Spine Journal. 2004;4:335–356.
12. Leaver AM, Refshauge KM, Maher CG, Latimer J, Herbert RD, Jull G, McAuley JH. Efficacy of manipulation for non-specific neck pain of recent origin: design of a randomised trial. BMC Musculoskeletal Disord. 2007;8:18.
13. Haneline MT. Chiropractic manipulation and acute neck pain: A review of the evidence. J Manipulative Physiol Ther. 2005;28:520–525.
14. Borghouts JA, Koes BW, Bouter LM. The clinical course and prognostic factors of non-specific neck pain: a systematic review. Pain. 1998;77:1–13.
15. Cassidy JD, Boyle E, Cote P, He Y, Hogg-Johnson S, Silver FL, Bondy SJ. Risk of vertebrobasilar stroke and chiropractic care. J Manipulative Physiol Ther. 2009;32:S201–S208.
16. Blum CL. Chiropractic & Stroke - What Are Our Responsibilities. Journal of Vertebral Subluxation Research. July 2008: 1-4.
17. Welcha A. Boone R. Sympathetic and parasympathetic responses to specific diversified adjustments to chiropractic vertebral subluxations of the cervical and thoracic spine. J Chiropr Med. 2008 September; 7(3): 86–93.
18. Budgell B.S. Reflex effects of subluxation: the autonomic nervous system. J Manipulative Physiol Ther. 2000;23(2):104–106. [PubMed]
19. Driscoll MD, Hall M.J. Effects of spinal manipulative therapy on autonomic activity and the cardiovascular system: a case study using the electrocardiogram and arterial tonometry. J Manipulative Physiol Ther. 2000;23(8):545–550. [PubMed]
20. Igarashii Y., Budgell B. Case study—response to arrhythmia to spinal manipulation: monitoring by ECG with analysis of heart rate variability. Chiropr J Aust. 2000;30(3):92–95.
21. Hart JF. Manipulation-induced subluxation and associated cardiac arrhythmia. Dig Chiropr Econ. 1991;33(4):68–69.
22. Connelly D.M. The effect of cranial adjusting on hypertension: a case report. Chiropr Tech. 1998;10:75–78.
23. Carrick FR. Changes in brain function after manipulation of the cervical spine. J Manipulative Physiol Ther. 1997;8:529–545.
24. Sato A, Swenson RS. Sympathetic nervous response to mechanical stress of the spinal column in rats. J Manipulative Physiol Ther. 1984;7:141–147.
25. Tran T, Kirby J. The effect of upper thoracic adjustment upon the normal physiology of the heart. J Am Chiropr Assoc. 1977;11s:58–62.
26. Briggs L, Boone WR. Effects of a chiropractic adjustment on changes in pupillary diameter: a model for evaluating somatovisceral response. J Manipulative Physiol Ther. 1988;11(3):181–189.
27. Harris W., Wagnon R.J. The effects of chiropractic adjustments on distal skin temperature. J Manipulative Physiol Ther. 1987;10(2):57–60.
28. Eingorn A.M., Muhs G.J. Rationale for assessing the effects of manipulative therapy on autonomic tone by analysis of heart rate variability. J Manipulative Physiol Ther. 1999;22(3):161–165.
29. Sato A, Sato Y, Schmidt RF. Reviews of physiology, biochemistry and pharmacology. vol. 130. Springer-Verlag; Berlin: 1997. The impact of somatosensory input on autonomic functions.
30. Bolton PS, Kerman IA, Woodring SF, Yates BJ. Influences of neck afferents on sympathetic and respiratory nerve activity. Brain Res Bull. 1998;47:413–419.
31. Cassidy JD, Lopes AA, Yong-Hing K. The immediate effect of manipulation versus mobilization on pain and range of motion in the cervical spine: a randomized controlled trial. J Manipulative Physiol Ther. 1992 Nov-Dec;15(9):570-5.
32. de Camargo VM, Alburquerque-Sendín F, Bérzin F, Stefanelli VC, de Souza DP, Fernández-de-las-Peñas C. Immediate effects on electromyographic activity and pressure pain thresholds after a cervical manipulation in mechanical neck pain: a randomized controlled trial. J Manipulative Physiol Ther. 2011 May;34(4):211-20. Epub 2011 Mar 21.
33. Martínez-Segura R, Fernández-de-las-Peñas C, Ruiz-Sáez M, López-Jiménez C, Rodríguez-Blanco C. Immediate effects on neck pain and active range of motion after a single cervical high-velocity low-amplitude manipulation in subjects presenting with mechanical neck pain: a randomized controlled trial. J Manipulative Physiol Ther. 2006 Sep;29(7):511-7.
34. Hahne AJ, Keating JL, Wilson SC. Do within-session changes in pain intensity and range of motion predict between-session changes in patients with low back pain? Aust J Physiother. 2004;50(1):17-23.

35. Fink M, Wähling K, Stiesch-Scholz M, Tschernitschek H. The functional relationship between the craniomandibular system, cervical spine, and the sacroiliac joint: a preliminary investigation. Cranio. 2003 Jul;21(3):202-8.
36. Giggey K, Tepe R. A pilot study to determine the effects of a supine sacroiliac orthopedic blocking procedure on cervical spine extensor isometric strength. J Chirop Med. Jun 2009;8(2):56-61.
37. Hochman JI, The Effect of Sacro Occipital Technique Category II Blocking on Spinal Ranges of Motion: A Case Series. J Man Manip Ther. Nov 2005;28(9): 719-23.
38. DeJarnette MB. Temporal-sphenoidal research project 1965. Privately Published. Nebraska City, NB. 1965.
39. Cashman S, Eaton S, Bonello R, Leslie J. The relationship between the trapezius muscle and spinal segments T1 to L5. 1st Annual Sacro Occipital Technique Research Conference Proceedings: Las Vegas, NV. 2009: 17-8.
40. Mootz R, Jameson S, Menke M. Inter and Intra-Rater Reliability of Occipital Fiber Palpation. Proceedings of the Fifth Annual Conservative Health Science Research Conference Oct 1986: 37-9.
41. DeJarnette MB. Chiropractic manipulative reflex technique. Privately Published. Nebraska City, NB. 1966, 1981.
42. Thompson JE, Bockhold H, Blum CL. Sacro Occipital Technique: Occipital Fiber Technique on Canine. J Chirop Ed. Spr 2012;26(1):135.
43. Thompson JE, Bockhold H, Blum CL. Sacro Occipital Technique: Occipital Fiber Technique on Equine. J Chirop Edu. 2010 24(1):142.
44. Zablotney J, Blum CL. Chiropractic care and the Situs Inversus patient: Modifying technique to match anatomy. J Chirop Ed. 2009;21(1): 119.
45. Dal Bello F, Dal Bello Veronica, Raupp JM, Santos LN. Alterations of dyspepetic signs and symptoms in patients presenting with gastroesophageal reflux disease following chiropractic treatment. J Chirop Edu. 2010 24(1):124.
46. Butafava J, Dal Bello F, Blum CL. The alterations of the dyspeptic signs and symptoms of patients with gastritis following chiropractic treatment: A small randomized controlled study. J Chirop Ed. Spr 2012;26(1):85.
47. Hawk C, Khorsan R, Lisi AJ, Ferrance RJ, Evans MW. Chiropractic care for nonmusculoskeletal conditions: a systematic review with implications for whole systems research. J Altern Complement Med. 2007 Jun;13(5):491-512.
48. Natural Standard: An organization that produces scientifically based reviews of complementary and alternative medicine (CAM) topics. [http://www.intelihealth.com/IH/ihtIH/WSIHW000/8513/34968/360060.html?d=dmtContent]
49. Lee YM. [Effect of self-foot reflexology massage on depression, stress responses and immune functions of middle aged women] Taehan Kanho Hakhoe Chi 2006;Feb, 36(1):179-188. Korean.
50. Lee YM. [Effects of self-foot reflexology on stress, fatigue, skin temperature and immune response in female undergraduate students]. [Article in Korean] J Korean Acad Nurs. 2011 Feb;41(1):110-8.
51. Jang SH, Kim KH. [Effects of self-foot reflexology on stress, fatigue and blood circulation in premenopausal middle-aged women]. [Article in Korean] J Korean Acad Nurs. 2009 Oct;39(5):662-72.
52. CS, Hamilton J, Macrae G, et al. A pilot study to evaluate the effect of reflexology on mood and symptom rating of advanced cancer patients. Palliat Med 2002;Nov, 16(6):544-545.
53. Stephenson N, Dalton JA, Carlson J. The effect of foot reflexology on pain in patients with metastatic cancer. Appl Nurs Res 2003;16(4):284-286.
54. Stephenson NL, Swanson M, Dalton J, et al. Partner-delivered reflexology: effects on cancer pain and anxiety. Oncol Nurs Forum 2007;Jan, 34(1):127-132.
55. Yang JH. [The effects of foot reflexology on nausea, vomiting and fatigue of breast cancer patients undergoing chemotherapy] Taehan Kanho Hakhoe Chi 2005;Feb, 35(1):177-185. Korean.
56. Quattrin R, Zanini A, Buchini S, Turello D, Annunziata MA, Vidotti C, Colombatti A, Brusaferro S. Use of reflexology foot massage to reduce anxiety in hospitalized cancer patients in chemotherapy treatment: methodology and outcomes. J Nurs Manag. 2006 Mar;14(2):96-105.
57. Stephenson N, Dalton JA, Carlson J. The effect of foot reflexology on pain in patients with metastatic cancer. Appl Nurs Res. 2003 Nov;16(4):284-6.
58. Stephenson NL, Weinrich SP, Tavakoli AS. The effects of foot reflexology on anxiety and pain in patients with breast and lung cancer. Oncol Nurs Forum. 2000 Jan-Feb;27(1):67-72.
59. Lee YM, Sohng KY. [The effects of foot reflexology on fatigue and insomnia in patients suffering from coal workers' pneumoconiosis] Taehan Kanho Hakhoe Chi 2005;Dec, 35(7):1221-1228. Korean.
60. Brygge T, Heinig JH, Collins P, et al. Reflexology and bronchial asthma. Respir Med 2001;95(3):173-179.
61. Wilkinson IS, Prigmore S, Rayner CF. A randomised-controlled trail examining the effects of reflexology of patients with chronic obstructive pulmonary disease (COPD). Complement Ther Clin Pract 2006;May, 12(2):141-147. Epub 2005;Dec 27.
62. Bishop E, McKinnon E, Weir E, Brown DW. Reflexology in the management of encopresis and chronic constipation. Paediatr Nurs 2003;Apr, 15(3):20-21.
63. Mak HL, Cheon WC, Wong T, et al. Randomized controlled trial of foot reflexology for patients with symptomatic idiopathic detrusor overactivity. Int Urogynecol J Pelvic Floor Dysfunct 2007;Jun, 18(6):653-658.
64. Carpenter JS, Neal JG. Other complementary and alternative medicine modalities: acupuncture, magnets, reflexology, and homeopathy. Am J Med 2005;Dec 19, 118(Suppl 12B):109-117. Review.
65. Li CY, Chen SC, Li CY, Gau ML, Huang CM. Randomised controlled trial of the effectiveness of using foot reflexology to improve quality of sleep amongst Taiwanese postpartum women. Midwifery. 2011 Apr;27(2):181-6.

66. Siev-Ner I, Gamus D, Lerner-Geva L, et al. Reflexology treatment relieves symptoms of multiple sclerosis: a randomized controlled study. Mult Scler 2003;9(4):356-361.
67. Stephenson NL, Dalton JA. Using reflexology for pain management: a review. J Holist Nurs 2003;Jun, 21(2):179-191.
68. Tovey P. A single-blind trial of reflexology for irritable bowel syndrome. Br J Gen Pract 2002;52(474):19-23.
69. Park HS, Cho GY. [Effects of foot reflexology on essential hypertension patients]. [Article in Korean] Taehan Kanho Hakhoe Chi. 2004 Aug;34(5):739-50.

Chiropractic cranial treatment protocol increases successful outcome of the multidisciplinary care model for traumatic brain injury (TBI) patients: A case series

Esther M. Remeta, D.C. & Charles L. Blum, D.C.

Introduction: Notoriously, all traumatic brain injury creates challenges that have various levels of negative impact on the patient's life and family. The goal of all TBI treatment plans is to try to achieve the highest state of wellness possible to increase the quality of life for the patient. Since often the prognosis of patients with TBI is dismal, offering a method of care that has low risk, reasonable benefit, and some biological plausibility is preferred. The goal of care should be to relieve patients of disability and pain while facilitating their ability to have normal activities of daily living. This article seeks to share a novel manner of multidisciplinary care, which incorporates the fields of allopathy, chiropractic, psychology, acupuncture, neurorehabilitation, and nutrition.

Case Report: Case # 1: A 28 year old female suffered TBI from a violent attack resulting with severe debilitating headaches requiring daily bed rest for two years with her condition consistently devolving prior to initial office visit at this clinic. She was diagnosed with chronic migraines and informed that she would need prescription medication the rest of her life.

Case # 2: A 30 year old female sustained a TBI from a motor vehicle accident. PETscans noted decreased bilateral occipital lobe metabolic activity. She had chronic headaches of 2 year duration with transient paralysis of her left extremities and short term memory loss. She was informed by her neurologist that due to the duration of her post concussion syndrome that no recovery could be expected.

Case # 3: A 70 year old male suffered a TBI from a stroke causing complete paralysis of the right upper and lower extremity. He also suffered from swallowing difficulty and speech problems. His neurologist had informed him that he would never work again, would need to walk with assistance, and have compromised use of his right hand.

Treatment/Intervention: A focal point of this multidisciplinary care at this clinic is Sacro Occipital Technique (SOT) cranial manipulation protocols [1,2] along with specific neurological rehabilitation training and home exercises. Home therapy focuses on physical, mental and emotional balance which increases efficacy of treatment. The care model is implemented for a minimum of 1 year with most patients remaining in the model for 5 years.

Results: Case # 1: When treatment began there was a significant initial improvement along with a gradual increase in function so that now at 2 years later (1 treatment per week) headaches occur only once every 2 weeks lasting 12 hours. She is off all 10 of her prescription medications except for 1 and is currently tapering off of it under medical supervision. She now is able to live a more normal life with her young 8 year old daughter taking part in her life activities as well.

Case # 2: After 5 years of treatment (1 time per week) she is headache free, has neither short term memory loss nor any paralysis episodes.

Case # 3: After 9 months of care he was back at work full time and without paralysis, speech or swallow problems. After 5 years of care (1 treatment per week) there were no obvious symptoms associated with the left parietal lobe infarct despite brain MRI scans showing damage was still present.

Discussion: Rehabilitation has been found effective using an interdisciplinary approach and "recovery from TBI can continue for at least 5 years after injury [3]." In another study they found, "that traumatic brain injury may cause decades-lasting vulnerability to psychiatric illness in some individuals [4]" and for a "subset of persons with moderate to severe TBI, neuropsychological recovery may continue several years after injury with substantial recovery [5]."

Conclusion: Success was measured based on improved quality of life and return to activities of daily living along with decreased subjective and objective symptomatology. Barriers to successful outcome included patient non-compliance to treatment plan and patient financial challenges. Highest success was achieved with the 5-year model and with the inclusion of SOT cranial manipulation protocols. The temporal nature of the patient's response to care and their gradual worsening of symptoms prior to treatment at this clinic suggest the patient's conditions would have worsened. This care model gives greater hope for those suffering from TBI as well as gives the health care profession at large more options to create treatment plans resulting in better prognosis.

References

1. Hospers L. EEG and CEEG Studies Before and After Upper Cervical or SOT Category II Adjustment in Children after Head Trauma, in Epilepsy and in Hyperactivity. Proceedings of the National Conference on Chiropractic. 1992 Nov: 84-139.

2. Blum CL, Chiropractic Treatment of Mild Head Trauma: A Case History. Proceedings of the 2002 International Conference on Spinal Manipulation. Toronto Ontario, Canada, Oct 2002:136-8.

3. Khan F, Baguley IJ, Cameron ID. Rehabilitation after traumatic brain injury. Med J Aust. 2003 Mar 17;178(6):290-5.

4. Koponen S, Taiminen T, Portin R, Himanen L, Isoniemi H, Heinonen H, Hinkka S, Tenovuo O. Axis I and II psychiatric disorders after traumatic brain injury: a 30-year follow-up study. Am J Psychiatry. 2002 Aug;159(8):1315-21.

5. Millis SR, Rosenthal M, Novack TA, Sherer M, Nick TG, Kreutzer JS, High WM Jr, Ricker JH. Long-term neuropsychological outcome after traumatic brain injury. J Head Trauma Rehabil. 2001 Aug;16(4):343-55.

SOT: category three: Predictability of outcomes: A case series.

I. Harvey Getzoff, D.C.

Abstract

Introduction: Patient pain patterns and spinal patterns in conjunction with Sacro Occipital Technique (SOT) Step-Out-Toe-Out maneuver (SOTO) and the Straight Leg Raise (SLR) can be helpful in establishing and communicating an effective treatment plan.

Case Series: Scenario # 1 has a spinal lean with possible lumbosacral pain along with pain in the buttocks and the upper leg on the OPPOSITE SIDE OF THE LEAN. Scenario #2 has possible spinal pain with pain of the entire leg on the SAME SIDE OF THE LEAN. Pain is often elicited with the SOTO maneuver. Scenario #3 can have no spinal lean or curvature with no lower back, buttock or upper leg pain. The pain is severe in the calf and possibly the foot, and there is difficulty sleeping because of the pain. Commonly there will be no pain on SOTO.

Treatment: SOT category three procedures including Sitting Disc Technique (SDT) and SOTO maneuver. The SLR can be instantly retested in all three scenarios immediately after the SDT and show a marked improvement.

Conclusions: More observational pragmatic case studies that can yield predictable outcomes should be presented as a means to incorporating evidence and clinical experience into clinical practice.

Introduction

Patient pain patterns and spinal patterns in conjunction with Sacro Occipital Technique (SOT) Step Out Toe Out maneuver (SOTO) and the Straight Leg Raise (SLR) can be helpful in making accurate judgments regarding the severity and the prognosis of the condition, as well as establishing and communicating an effective treatment plan.

Straight Leg Test

The SLR, also called Lasègue test, can be performed during the physical examination to determine whether a patient with low back pain has an underlying herniated disk, mostly located at L5 /S1 level. A systematic review of the literature including statistical meta-analysis noted that the SLR test has had its diagnostic accuracy limited by its low specificity.[1] Yet other studies have found that that the SLR can be useful. Jönsson and Strömqvist found that the SLR as performed in clinical practice has a strong correlation with various parameters that signify the pain level of the patient.[2] Summers et al noted that "acute low back pain associated with significant restriction in SLR is likely to be caused by a disc prolapse compressing the anterior theca."[3]

A study by Xin et al of 113 patients "showed a close relationship between the location of the pain and the position of the protrusion of the disc. The degree of limitation of SLR was also found to have a direct relationship to the size and position of the protrusion and to its relationship to the spinal nerve. The protrusions were classified into three types according to position in relation to the dura mater and to the pattern of pain that was induced by passive SLR. On SLR, central protrusions tended to cause pain in the back, lateral protrusions caused pain in both the back and lower extremity.On this basis, the distribution of pain on SLR allowed an accurate prediction of the location of the lesion in 100 (88.5 per cent) of the 113 patients."[4]

Step Out Turn Out Maneuver

The SOTO maneuver is utilized in SOT both diagnostically and therapeutically in the treatment of disc herniations [5,6]. A study by Remeta "evaluated a five case review from patient records where positive SOTO maneuver findings were correlated to MRI results."[7] The SOTO maneuver was performed on patients with lower extremity radiating pain. The patient was prone and the affected leg was then abducted, the leg externally rotated and foot dorsiflexed. This position is held for 30 seconds and then placed in the neutral position for one minute and then repeated. The patient's report of the change in pain intensity (same, better or worse) determined the indicated findings

"The SOTO maneuver is purported to help differentiate between lumbar disc lesions from a piriformis muscle syndrome. Additionally the SOTO maneuver is also used to assist diagnosis into the type and severity of the disc lesion. Positive SOTO maneuver findings for piriformis muscle syndrome is determined by elimination of the radiating pain after the first time the maneuver is performed. Disc findings, on the other hand, were associated with reports of no change or worsening of the patient's symptomatology, after the first maneuver. For these patients the maneuver was performed two additional times at one-minute intervals. Findings of 'same, same,

better' or 'same, better, better' offered a good prognosis following SOT category three chiropractic conservative care."[7]

"Findings of increased pain on second and third attempts of the maneuver was indicative of disc fragmentation and high probability necessitating surgical intervention. A clinical study was performed to test the diagnostic accuracy of the SOTO maneuver in patients with lumbar disc lesions. The study was accomplished by comparing initial examination SOTO indicators and results of MRI. A high degree of accuracy was observed in being able to differentiate a disc bulge versus disc herniation via the SOTO Maneuver, as supported by MRI. Therefore the five cases studied where positive disc finding were indicated by the SOTO maneuver followed by MRI, offered consistent findings for segregating disc fragmentation from disc protrusion and prolapsed [7]."

SOT: A Systems Method of Analysis

The scenarios that follow depict three different patient outcomes. There are case studies of each of the scenarios regarding basic history, key findings and commentary concerning the outcome of each case. SOT is a method of chiropractic based primarily on the identification and treatment of three bodily systems (called Categories): The cranial-sacral respiratory system, the weight-bearing system and the function of the lumbar spine. SOT was developed by Dr. M. B. DeJarnette, an osteopath and chiropractor.[8] Utilizing SOT evaluation procedures and incorporating standard orthopedic testing can help guide successful treatment and predictable outcomes. Keep in mind that some case scenarios will have overlapping findings but still can be judged for the predictability of its outcome.

Scenario # 1 Presentation

Scenario # 1 has a spinal lean with possible lumbosacral pain along with pain in the buttocks and the upper leg on the OPPOSITE SIDE OF THE LEAN. The pain could or could not be duplicated with the SOTO maneuver; however, if painful, each SOTO will lessen the pain.

A Heel Toe Test[9] (standing and walking on the toes then on the heels) should be easily achieved without provoking pain. The patient's pain should not be exacerbated while sleeping. A SLR will have limitations bilaterally or unilaterally with possible pain on the involved side. The prognosis is positive. The diagnosis is a bulging disc. The predictability of recovery is favorable.

Findings:	**Remarks:**
Pain Pattern	*Opposite side of the spinal lean*
SOTO	*No pain, probable unilateral restriction*
Heel/Toe Test	*Able to do, no pain*
Spinal pattern	*Lean to side opposite the pain*
Sleeping	*No night pain*
SLR	*Bilateral or unilateral restrictions*

Case Study Scenario #1

Basic History: Female, Mary C., born 2/29/1940. Right low back pain in lumbosacral area and pain in right lower buttocks. Onset, four months previous. No trauma. X-ray diagnosis: spinal stenosis.

Key Findings: Category III. Left spinal lean. Straight leg raise, right 75 degrees, left psoas. No Heel Toe finding. Right SOTO restriction.

Commentary: Presently out of pain, maintaining homecare and exercise. Still has left lean, SOTO improved, SLR bilateral 90 degrees.

Scenario # 2 Presentation:

If the findings become more like scenario #2, the prognosis will be more guarded, the severity of the condition is greater and the treatment plan is more conditional. Patient participation becomes more important.

Scenario #2 has possible spinal pain with pain of the entire leg on the SAME SIDE OF THE LEAN. Pain is often elicited with the SOTO maneuver. More repetitions may be needed for improvement, or it is possible that no improvement will be seen using SOTO. The Heel Toe Test should still be negative for lower leg neuromuscular deficiency and pain. The patient still should be able to sleep through the night without being awakened by leg pain. The SLR is also limited especially on the involved side. As previously stated, the prognosis is guarded; however, the probability of recovery is still possible. The treatment plan must be regulated for maximum patient support (rest, exercise and an understanding of the severity of the problem.)

Findings:	**Remarks:**
Pain Pattern	Same side as lean on entire leg
SOTO	Possible pain with possible improvement
SLR	Limited bilateral
Sleeping	Able to sleep without pain
Heel Toe Test	Able to do with no pain.
Spinal Pattern	Lean to same side as leg pain

Case Study Scenario #2

Basic History: Male, Louis S., born 11/25/1961. Low back pain, left and lumbosacral area. Left leg pain, posterior, buttocks and leg into ankle, chronic history. Recent episode three weeks ago. Able to sleep through the night.
Key Findings: Left spinal lean, left SOTO, slight posterior pelvic pain and restriction. No Heel Toe finding, straight leg raise, right 70 degrees, left 60 degrees with slight discomfort in left buttocks area.

Commentary: Out of leg pain, some lumbosacral pain, bilateral 85 degrees SLR. Some left SOTO restriction. No lean. Continuing homecare.

Scenario # 3 Presentation:

If the findings become more like scenario #3, the prognosis is even more guarded, the severity of the condition is even greater and the treatment plan acceptance by the patient is with an understanding of the possibility of not having a fully successful outcome.

Scenario #3 can have no spinal lean or curvature with no lower back, buttock or upper leg pain. The pain is severe in the calf and possibly the foot, and there is difficulty sleeping because of the pain. There will be no pain on SOTO. SLR will have bilateral restriction with significantly more restriction in addition to pain on the involved side. There will be a positive Heel Toe Test finding for pain and limitation on the involved side. As mentioned, the prognosis is poor; a MRI will further define the problem and usually medical intervention will be needed. Scenario #2 and #3 are more likely to have disc herniations, scenario #3 obviously more severe.

Findings:	**Remarks:**
Pain Pattern	Severe in one calf
SOTO	No pain
SLR	Limited and painful on involvement side
Sleeping	Unable to sleep through the night
Heel Toe Test	Limitation on side of involvement
Spinal Patter	Worse if lean to same side as calf pain but opposite side lean still a guarded prognosis.

Case Study Scenario #3:

Basic History; Female, Lynn G., born 1/11/1975. Pain left sacroiliac region and posterior left buttocks and leg into foot, most severe in left calf. Unable to sleep due to pain in left calf. One month duration, progressively getting worse, especially the last three days. Taking up to 1800 mg. Ibuprofen per day. Painful when coughing.

Key Findings: Difficult walking on heel and toes of left foot. Left spinal lean, SOTO negative. Palpatory tenderness, lumbar 4,5 and lumbar 5, sacral spinous spaces. SLR left 30 degrees and painful in calf.

Commentary: Improvement of calf pain. Pain when doing lumbar flexion exercising. Limited adjustments due to personal problems. Pain remains in low back and vague in left leg. No longer left lean. Heel Toe finding improved. Sleeps better. SLR 60 degrees positive on left, normal on right.

Treatment:

SOT category three procedures [10-3] can be extremely effective in treating all three scenarios, especially if DeJarnette's Sitting Disc Technique (SDT) [6,14] is incorporated along with the category three adjusting protocol. Also the SOTO maneuver is both a diagnostic test and an adjustment. Subsequent SOTO applications on the blocks further define the problem while at the same time may often improve the patient's presenting condition. The SLR can be instantly retested in all three scenarios immediately after the SDT and show a marked improvement.

Discussion:

All three scenarios should be examined repeatedly at each office visit utilizing a plumb line for weight bearing gravitational analysis. As the antalgic lean lessens- and it often does - this alone can be significant for judging patient improvement. SOT category three treatment and analysis offers a unique skill set for doctors who treat patients who prefer not to have forceful thrusting to the spine or, due to their condition, (e.g., post fracture, osteoporosis, etc.) may have contraindications to this form of care.

One crucial ingredient when it comes to the predictability of all the scenarios presented in this article is the patients are seventy years of age or older, with possible compression fractures in the lumbar and/or transitional areas of the spine. This is of particular importance in female patients. Acute compression fractures are extremely difficult to adjust and have a limited positive outcome (guarded at best). By following these protocols, patients with old compression fractures of the spine can be more manageable with a better predictable outcome based on these three scenario guidelines.

Utilizing case studies to evaluate real clinical experiences [15] can be extremely valuable for doctors. It can be used to understand how a doctor with over 30 years' experience uses patient assessment as an important piece in the "clinical experience" aspect of building an evidence-informed practice. The study design was observational with no control or comparison group. Thus, changes of the patients' conditions may have been the result of a natural progression of the condition, placebo effects, ideomotor effect, Hawthorne effects, or confounding variables. It must be emphasized that the patients were not all treated in the same way because this was a pragmatic case study.

Conclusions:

While there is a great need for randomized controlled trials (RCTs) to help evaluate the utility of assessment and treatment modalities, this type of study does tend to limit the actual clinical encounter which occurs in a doctor's office. This reductionist quality of RCTs makes incorporating pragmatic, observational type study of value in the development of an evidenced informed practice. More observational pragmatic case studies that can yield predictable outcomes should be presented as a means to incorporating evidence and clinical experience into clinical practice.

References:

1. Devillé WL, van der Windt DA, Dzaferagić A, Bezemer PD, Bouter LM. The test of Lasègue: systematic review of the accuracy in diagnosing herniated discs. *Spine (Phila Pa 1976).* 2000 May 1;25(9):1140-7.
2. Jönsson B, Strömqvist B. The straight leg raising test and the severity of symptoms in lumbar disc herniation. A preoperative evaluation. *Spine (Phila Pa 1976).* 1995 Jan 1;20(1):27-30.
3. Summers B, Malhan K, Cassar-Pullicino V. Low back pain on passive straight leg raising: the anterior theca as a source of pain. *Spine (Phila Pa 1976).* 2005 Feb 1;30(3):342-5.
4. Xin SQ, Zhang QZ, Fan DH. Significance of the straight-leg-raising test in the diagnosis and clinical evaluation of lower lumbar intervertebral-disc protrusion. *J Bone Joint Surg Am.* 1987 Apr;69(4):517-22.
5. Getzoff H. The Step Out-Toe Out Procedure: A Therapeutic and Diagnostic Procedure. *Chiropractic Technique*. Aug 1998;10(3):16-8.
6. Getzoff H. Disc Technique: An Adjusting Procedure for any Lumbar Discogenic Syndrome. *The Journal of Chiropractic Medicine.* Fall 2003; 2(4): 142-4.
7. Remeta EM, Indicators for Disc Herniation Supported by Magnetic Resonance Imaging (MRI). *9th Annual Clinical Meeting of the American Academy of Pain Management,* Las Vegas, NV, Sep 1998.
8. Getzoff H. Sacro Occipital Technique Categories: a System Method of Chiropractic. *Chiropractic Technique*. May 1999; 11(2): 62-5.
9. Gleadle J. History and Examination at a Glance. Malden, MA: Blackwell Publishing. 2007: 37.
10. De Jarnette MB. .Sacro Occipital Technique. Nebraska City, NE. Self published, 1980: 162–72, 306-31.
11. Pfefer, MT, Rasmussen S, Uhl NS, Cooper S, Treatment of a lumbar disc herniation utilizing sacro occipital chiropractic technique. *Journal of Chiropractic Education.* Spr 2003; 17(1): 72.
12. Schneider, MJ, Cox, JM, Polkinghorn BS, Blum, CL, Getzoff, H, Troyanovich, SJ. Grand Rounds Discussion: Patient with Acute Low Back Pain: Harvey Getzoff, Discussant. *Chiropractic Technique.* Jan 1999; 11(1): 2-4.

13. Blum C, Sacro Occipital Technique Pelvic Block Treatment for Severe Herniated Discs: A Case Study. *Journal of Chiropractic Education.* Spr 2004;18(1): 38-9
14. Blum CL, Pick MG, Lovett L, Sitting disc technique: video myelogram fluoroscopy study *Proceedings of the 2005 International Conference on Chiropractic Research: Sydney Australia* Jun 16-18, 2005: 272.
15. Getzoff IH. Learn SOT From Clinical Case Studies. Privately Published: Marlton, NJ, 2006. [http://drgetzoffworkbooks.com/]

Resolution of Nocturnal Enuresis in five individual cases, following Chiropractic adjustment to correct vertebral subluxation

Rob Sinnott, D.C., FPhC

According to prevalent data, nocturnal enuresis occurs in 10% of six year-olds, 3% of twelve year-olds, and 1% of eighteen year-olds. Due to historical social embarrassment connected to this medical diagnosis, is not often openly discussed by either the afflicted children or parents. As such, it may escape detection by many in health care, meaning the incidence may actually be higher than commonly noted.

Current science feels that there is no increased incidence in emotional disturbances in these children. The typical medical treatments include withholding drinking any fluids in the evening before bed, and alarms that wake the child when the child begins to urinate in their sleep.

This paper involves five cases in the sequence of beginning Chiropractic care in male children ranging in age from 7 to 12 years of age. All cases were checked for the presence of vertebral subluxation and appropriate Chiropractic adjustment was given. Parents and children were instructed to keep records of the incidence of wet and dry nights, including the week previous to starting care through the termination of nocturnal enuresis for a period of an entire month.

Chiropractic findings, how they were addressed, and further details of each case, as well as literature and physiology to explore the mechanics of the role vertebral subluxation may play in such cases will be discussed in the paper. Several neurological explanations are put forth for how this mechanism of nocturnal enuresis via vertebral subluxation and resolution after Chiropractic adjustment may be scientifically rationalized.

Subluxation Reduction Demonstrated in 'After-correction' Blair Protractoviews

H. Charles Woodfield, III, BSPharmacy, DC
Seattle Upper Cervical Research Institute
chuckwoodfield@yahoo.com
822 Woodbine Way
Bellingham, WA 98229
360-933-1438

Dr. Michael Lenarz, DC
Seattle Upper Cervical Research Institute
1818 E Mercer St
Seattle, WA 98112
866-855-1705

Adam Klassen, DC
700 Murdock Street, Suite B
Sedro Woolley, WA 98284
360-855-1021

Introduction:

The Blair Upper Cervical Chiropractic protractoview (PV) is a customized oblique-nasium x-ray visualizing the occipitoatlantal (OA) articulation (1). If the atlas is misaligned anterior to the occipital condyle, the lateral mass edge will appear as an 'overlap' on the occipital condyle using the PV. Conversely, a posterior misalignment reveals the lateral edge appearing as an 'underlap' (2).

For comparative effectiveness research, defining a Blair 'after-correction' radiograph is useful in studying relationships between two Upper Cervical procedures using x-ray analysis documenting subluxation reduction (3).

The purpose of this investigation was to observe changes in an 'after-correction' PV radiograph, then determining if the amount of overlap/underlap (O/U) reduction is related to subject reported symptom improvement.

Methods:

Subjects were consecutively recruited, signing a consent form. They underwent standardized Blair care delivered by a practitioner with one-year experience. Participants completed VAS scale symptom surveys at each visit. At week twelve, subjects were reevaluated, including radiographs. PV radiographs were then compared with 'before-correction' films to determine a reduction of O/U using a graded scale, determined by an advanced proficiency Blair practitioner who had no contact with the subjects.

Results:

Ten males and fifteen females, average age of 49 years, volunteered for the study. Subjects reported an average 3.28 presenting symptoms, neck pain and headache being most common. Symptom resolution was related to objective examiner rated reduction in U/O. Six subjects with no O/U reduction reported a 43% (SE = 19) improvement in symptoms. The seven with complete reduction reported 49% (SE = 11) improvement. Ten with partial reduction reported a 77% (SE = 5) improvement. Two with an increased O/U reported a 71% (SE = 2) improvement.

Conclusions:

This is the first study to document 'after-correction' Blair PVs. Being unique as first is limiting as no comparative results exist. Most surprising is the notable subjective improvement in symptoms following a partial reduction or increase in O/U.

Using these results, a future study will be designed to further define the relationship of after-correction radiographs and subject's quality of life.

1. Blair WG. A synopsis of the Blair upper cervical spinographic research; scientific review of chiropractic. Int Rev Chiropr 1964;1(1):1-19.

2. Hubbard TA, Vowles BM, Forest T. Inter- and intraexaminer reliability of the Blair protractoview method: examination of a chiropractic radiographic technique. Journal of chiropractic medicine. 2010;9(2):60-8. Epub 2011/06/02.

3. Wernsing, A.A. The Atlas Specific Origin, Development and Application. Oxford Press, Hollywood, California. 12. 1941.

Subluxation Based National Upper Cervical Chiropractic Association (NUCCA) Care for Temporomandibular (TMJ) Pain

H. Charles Woodfield, III, BSPharmacy, DC
Research Advisor for the Upper Cervical Research Foundation
chuckwoodfield@yahoo.com
822 Woodbine Way
Bellingham, WA 98229
360-933-1438

Marshall Dickholtz, Sr., DC, FICA
dmarshallsr@gmail.com
3420 West Peterson Avenue
Chicago, Illinois 60659-3448
773-267-0020

Introduction:

Evidence exists that the Atlas subluxation contributes to TMJ dysfunction and patient reported pain (1-3). Oral physiology investigation support a functional relationship between the temporomandibular and cranio-cervical neuromuscular systems leading to simultaneous movements in the TMG, atlanto-occipital, and cervical spine joints (4). The purpose of this investigation was in documenting NUCCA care provided to dentist referred subjects with chronic TMJ pain. Data from this pilot study could then be used to justify further research while attracting needed funding.

Methods:

Five subjects with chronic TMJ pain, greater than one year and resistant to dental intervention, volunteered for NUCCA care. After signing the study consent form, subjects were provided standard NUCCA care by a Board Certified practitioner with over sixty years' experience (5). Based on the literature, a visual analog pain scale (VAS) was used as the primary outcome measure (6, 7). Each subject presented with a contractured leg or apparent short leg. Posture examination with the Anatometer and Lazar Light System indicated subjects deviated from the vertical axis indicating Atlas subluxation. Pre NUCCA series radiographs; Lateral, Nasium, Vertex views, confirmed the presence of

Atlas subluxation in each subject. Subjects were then studied radiographically after receiving a NUCCA correction to verify subluxation removal. Subjects were followed weekly for eight weeks to assure the correction maintenance as well as collecting VAS data at each visit.

Results:

The subject cohort consisted of four females and one male, ages ranging from 19 to 80 years. Subjects suffered unresolved TMJ pain an average of 9.3 (± 2.4) years. Following the Atlas correction, the apparent short leg went even and posture analysis indicated each subject returned to the vertical axis. Post orthogonal x-ray analysis indicated reduction of the Atlas subluxation. Each subject received one NUCCA correction over the 8 week study period. Average before correction VAS scores averaged 5.9 (± 1.9) and after correction average scores were 0.9 (± 1.1). Significant reduction of VAS scores are similarly reported by others in the literature (6, 7). Results are limited in that care was provided by only one practitioner and that the study period lasted eight weeks. There is a need to determine the long term effect on TMJ pain.

Conclusions:

NUCCA reduction of the Atlas subluxation may be effective in reducing chronic TMJ pain indicated by lower VAS scores. These results substantiated by the literature indicate further investigation is warranted(8).

1. Alcantara J, Plaugher G, Klemp DD, Salem C. Chiropractic care of a patient with temporomandibular disorder and atlas subluxation. Journal of manipulative and physiological therapeutics. 2002;25(1):63-70. Epub 2002/03/19.
2. Vernon LF, Ehrenfeld DC. Treatment of temporomandibular joint syndrome for relief of cervical spine pain: case report. Journal of manipulative and physiological therapeutics. 1982;5(2):79-81. Epub 1982/06/01.
3. Knutson GA, Jacob M. Possible manifestation of temporomandibular joint dysfunction on chiropractic cervical X-ray studies. Journal of manipulative and physiological therapeutics. 1999;22(1):32-7. Epub 1999/02/25.

4. Eriksson PO, Haggman-Henrikson B, Nordh E, Zafar H. Co-ordinated mandibular and head-neck movements during rhythmic jaw activities in man. Journal of dental research. 2000;79(6):1378-84. Epub 2000/07/13.
5. NUCCA standards of practice and patient care. Monroe, MI: National Upper Cervical Chiropractic Association 1994.
6. DeVocht JW, Schaeffer W, Lawrence DJ. Chiropractic treatment of temporomandibular disorders using the activator adjusting instrument and protocol. Alternative therapies in health and medicine. 2005;11(6):70-3. Epub 2005/12/03.
7. Devocht JW, Long CR, Zeitler DL, Schaeffer W. Chiropractic treatment of temporomandibular disorders using the activator adjusting instrument: a prospective case series. Journal of manipulative and physiological therapeutics. 2003;26(7):421-5. Epub 2003/09/17.
8. DeBar LL, Vuckovic N, Schneider J, Ritenbaugh C. Use of complementary and alternative medicine for temporomandibular disorders. Journal of orofacial pain. 2003;17(3):224-36. Epub 2003/10/03.

Sitting disc technique and the relationship to the straight leg raise: A retrospective case series of thirty patients

Harvey Getzoff, D.C.

Abstract

Introduction: The purpose of this study was to determine if a chiropractic intervention, the sitting disc technique (SDT), could be used in coordination with a common orthopedic/neurological test, the straight leg raise (SLR).

Case Series: A retrospective study of 30 sequential patients treated at one practitioner's office that, following assessment and evaluation, were determined to have a positive SLR bilaterally, and then were adjusted with the SDT and then reassessed utilizing the SLR (measured with a flexometer). To qualify for the study all 30 patients had to have similar SLR findings on both leg lifts, pain in the lumbosacral area with some pelvic area pain, unilateral lower extremity pain but not below the knee, and with pain localizing to the leg contralateral to their antalgic lean.

Results: Improvement immediately followed care in 27 or 30 cases with the least improvement by 4 patients at 5°, maximum at 35° by one patient and the majority showing improvement between 10-25°.

Conclusion: The SLR appeared to be a helpful method to monitor the functional improvement of the lumbar spine after successful SDT adjustments. The SLR also appeared to parallel positive symptomatic changes that accompanied lumbar spine improvement following the SDT applications.

References: Please see the end of the following full text submission.

Introduction

The purpose of this study was to determine if a chiropractic intervention, the sitting disc technique (SDT), could be used in coordination with a common orthopedic/neurological test, the straight leg raise (SLR). Clinically the SLR could be used as a pre and post assessment tool to assess the effectiveness of SDT application. Improvement of SLR following SDT application could help determine which specific lumbar spinal segments related discs might be helped by SDT adjustments.

Orthopedic and neurological tests are commonly used with chiropractic diagnostic methods to evaluate patients with chronic mechanical low-back pain. However, studies have found these tests are not readily reproducible.[1] In general, it has been found that "most procedures commonly used by clinicians in the examination of patients with back pain demonstrate low reliability."[2] Since studies to date suggest that a patient's sensitivity and response to palpation for pain demonstrates good reliability.[3] Change in pain response has been seen as a good tool to measure patient improvement during a clinical encounter.[4]

The straight leg raise (SLR), also called Lasègue test, can be performed during the physical examination to determine whether a patient with low back pain has an underlying herniated disk, mostly located at L5 /S1 level.[5] A systematic review of the literature including statistical meta-analysis noted that the SLR test has had its diagnostic accuracy limited by its low specificity.[6] Yet other studies have found that that the SLR can be useful. Jönsson and Strömqvist found that the SLR as performed in clinical practice has a strong correlation with various parameters that signify the pain level of the patient.[7] Summers et al noted that "acute low back pain associated with significant restriction in SLR is likely to be caused by a disc prolapse compressing the anterior theca."[8]

A study by Xin et al of 113 patients "showed a close relationship between the location of the pain and the position of the protrusion of the disc. The degree of limitation of SLR was also found to have a direct relationship to the size and position of the protrusion and to its relationship to the spinal nerve. The protrusions were classified into three types according to position in relation to the dura mater

and to the pattern of pain that was induced by passive SLR. On SLR, central protrusions tended to cause pain in the back, lateral protrusions caused pain in both the back and lower extremity. On this basis, the distribution of pain on SLR allowed an accurate prediction of the location of the lesion in 100 (88.5 per cent) of the 113 patients."[9]

The Sitting Disc Technique (SDT) has been found clinically to be an effective method of adjusting the lumbar spine for any lumbar subluxation or related discogenic syndrome.[10] In combination with the SDT, the SLR can be both a subjective (patient's pain response) and an objective (patient's range of motion) test to elicit and locate lumbar and sciatic pain. It can also be used to judge the function of the lumbar spine, pelvis, and hamstring muscles.[11] Clinically, the SDT has been found to have a positive effect on the SLR findings when it is performed correctly.[12] This paper is a retrospective analysis of how patients presenting with a specific selection criteria responded to the SDT intervention.

Case Series – Intervention/Methods

This paper is a retrospective study of 30 sequential patientstreated at one practitioner's office that, following assessment and evaluation, were determined to have a positive SLR bilaterally, and then were adjusted with the SDT. They were then reassessed utilizing the SLR. To qualify for the study all 30 patients had to have similar SLR findings on both leg lifts. Although the SLR is often used as diagnostic when a positive response is elicited unilaterally, for the purpose of this study only patients with bilateral symptomatology were used. All 30 patients' cases reviewed for this study had pain in the lumbosacral area with some pelvic area pain and unilateral lower extremity pain not below the knee, with pain localizing to the leg contralateral to the antalgic lean.

Methods/Intervention

The Straight Leg Raise (SLR) was performed with the patient lying in the supine position. The doctor would passively lift the patient's one leg straight up, with no knee flexion either side and with no lifting of the pelvis. The examiner passively helped the patient, by lifting at the Achilles area until resistance or pain was met. Using a flexometer, the degree of hip flexion was measured. As a matter of importance in this study, the measurement for each SLR was measured [5]. If pain was elicited, the area of pain was noted whether it was in the lumbar spine and if the pain that radiated down the leg. Since the three lower lumbar discs tend to have distinct pain patterns in the lower extremities, care was used when evaluating pre and post SLR findings relative to the SDT intervention. Generally the L5/S1 disc sciatica is more posterior in the thigh/leg, the L4/L5 disc sciatica is lateral in the thigh/leg, and the L3/L4 disc sciatica is more anterior in the thigh/leg.

The SDT used was performed to five times at each interspinous space, L3/L4, L4/L5, and L5/S1 with the patient sitting on a stool or a chair with the back of the chair to the side. The doctor made contact with his thumb just inferior to the tip of the spinous process of fifth lumbar. The patient was instructed to move into lumbar spine flexion by pulling their abdomen inward while arching the spine back (from lordosis to kyphosis). The doctor maintained a holding pressure in the superior direction on the spinous process of fifth lumbar. At the same time, the patient brought their chin to their chest. The patient then returned the spine and head to a neutral position, while the doctor maintained a holding pressure in a superior direction on the spinous process. The process was repeated approximately three times on the inferior aspect of each lumbar spinous process. At the same time that the spinous process inferior tip was contacted, the doctor attempted to feel the space between the adjacent spinous processes of the lumbar vertebra below using the same thumb making the spinous process contact.

Thirty Patients – Pre and Post SLR Improvement Following SDT								
Degree of SLR Improvement	0°	5°	10°	15°	20°	25°	30°	35°
Number Patients	3	4	4	4	7	5	2	1

As can be seen from the chart above, the greatest change was an improvement between 5-25 percent. Three patients had no improvement following the SDT,and three patients had greater than 25 percent improvement following SDT.

Discussion

The SDT may be indicated when any sign or symptom of lumbar involvement is present.[10] Diagnostically, the SDT is needs to be repeated if any spinous process of the lumbar spine is painful while executing the SDT, and if the spacing between the lower adjacent spinous process does not improve as the doctor repeat the process. In this study, after the SDT was performed the patients showed improvement with less sensitivity at the spinous process to palpation, more interspinous space, general improvement in lumbar flexion, and improved findings on repeated SLR.

Conclusion

The SLR appeared to be a helpful method to monitor the functional improvement of the lumbar spine after successful SDT adjustments. The SLR also appeared to parallel symptomatic changes that accompanied lumbar spine improvement following the SDT applications, which included less sensitivity at the spinous process to palpation, more interspinous space, and general improvement in lumbar flexion. From this limited study it was determined that utilizing the SLR and the SDT relationship in conjunction with spinal patterns, pain patterns, and ranges of motion can guide the management of dysfunctions of the lumbar spine and disc-relatedpresentations. Further study with a larger sample utilizing a control, sham intervention, and randomization would be indicated.

References

1. French SD, Green S, Forbes A. Reliability of chiropractic methods commonly used to detect manipulable lesions in patients with chronic low-back pain. J Manipulative Physiol Ther. 2000 May;23(4):231-8.
2. May S, Littlewood C, Bishop A. Reliability of procedures used in the physical examination of non-specific low back pain: a systematic review. Aust J Physiother. 2006;52(2):91-102.
3. Hestbaek L, Leboeuf-Yde C. Are chiropractic tests for the lumbo-pelvic spine reliable and valid? A systematic critical literature review. J Manipulative Physiol Ther. 2000 May;23(4):258-75.
4. Hahne AJ, Keating JL, Wilson SC. Do within-session changes in pain intensity and range of motion predict between-session changes in patients with low back pain? Aust J Physiother . 2004;50(1):17-23.
5. Hsieh CY, Walker JM, Gillis K. Straight-leg-raising test. Comparison of three instruments. Phys Ther. 1983 Sep;63(9):1429-33.
6. Devillé WL, van der Windt DA, Dzaferagić A, Bezemer PD, Bouter LM. The test of Lasègue: systematic review of the accuracy in diagnosing herniated discs. Spine (Phila Pa 1976). 2000 May 1;25(9):1140-7.
7. Jönsson B, Strömqvist B. The straight leg raising test and the severity of symptoms in lumbar disc herniation. A preoperative evaluation. Spine (Phila Pa 1976). 1995 Jan 1;20(1):27-30.
8. Summers B, Malhan K, Cassar-Pullicino V. Low back pain on passive straight leg raising: the anterior theca as a source of pain. Spine (Phila Pa 1976). 2005 Feb 1;30(3):342-5.
9. Xin SQ, Zhang QZ, Fan DH. Significance of the straight-leg-raising test in the diagnosis and clinical evaluation of lower lumbar intervertebral-disc protrusion. J Bone Joint Surg Am. 1987 Apr;69(4):517-22.
10. Getzoff H. Disc Technique: An Adjusting Procedure for any Lumbar Discogenic Syndrome. J Chiropr Med. Fall 2003; 2(4): 142-4.
11. Getzoff H. Disc technique, differential diagnosis and treatment methodology: Two case reports. 1st Annual Sacro Occipital Technique Research Conference Proceedings: Las Vegas, NV. 2009: 37-40.
12. Getzoff H. SOT: Category Three: Predictability of outcomes: A case series. 3rd Annual Sacro Occipital Technique Research Conference Proceedings: Nashville, TN. 2011: 58-64.

Chiropractic and Epilepsy

Jasen Van Dyke
Chiropractic Intern, Sherman College of Chiropractic

(Advisor: John Hart, DC, MHSc, Sherman College of Chiropractic)

Introduction

There is some evidence that chiropractic care may be beneficial for patients with epilepsy. [1] The present study seeks to continue with this line of research with a sample of 30 patients who will be randomized into adjustment or sham group. Preliminary findings of this study (for the first patient) are reported in this presentation.

Methods

The target population for this study consists of patients of any age who have a diagnosis of epilepsy. After analyzing the spine to identify a subluxation(s), a full spine adjusting protocol is used. Autonomic function is assessed with heart rate variability and thermal pattern analysis. A journal is kept by the patient (or caregiver) to track seizure activity, date of seizure, time of seizure, duration of seizure, whether injuries occurred during the seizure, and description of the seizure.

Results

For the first patient, a 42 day seizure journal prior to chiropractic care reveals 30 seizures (0.7 seizures / day), each lasting an average of 3.73 minutes each. Post-adjustment results reveal 18 seizures over a 29 day period (0.6 seizures / day), with the average seizure lasting 2.68 minutes.

Conclusion

This patient appears to be experiencing relief from seizure activity following the delivery of subluxation-based chiropractic care. Initial results warrant continued research and other patients with epilepsy are encouraged to consider participating in this study. Statistical analyses will be applied to a future sample of 30 patients.

Reference

1. Pistolese RA. Epilepsy and Seizure Disorders: A Review of Literature Relative to Chiropractic Care of Children. *Journal of Manipulative and Physiological Therapeutics* 2001; 24(3):199-205.

A Lexicon for Structural Hygiene for the Developing Human™

Brigette Bowler, D.C. and Kathryn Conlen, BA, MT, CST

A lexicon is a defining list of the words and phrases important to any group to recognize terms, words, and concepts as well as convey meaning in any field. "A central role of the lexicon is the documenting of established *lexical norms and conventions*. Lexicalization is the process where new words, having gained into widespread usage, enter in the lexicon." Wikipedia

Structural Hygiene for the Developing Human™ is a model of care developed by Brigette Bowler, DC in the last 25 years based on the basic tenants of the Hole-in-One (HIO) chiropractic technique, science and philosophy of BJ Palmer, DC. The Greenbooks provide knowledge and theory reaching deep into the chiropractic meaning of human experience of health, life and its order. However, our lexicon we will not review all of these terms but use lexicalization to introduce the new concepts to the chiropractor or healthcare provider.

Terms will be introduced from the system of cranial manipulation spanning 100 years of science and practice. These combined with concepts of human growth and development from neonate to adult that are used to guide the practitioner both theoretically and physiologically recognizing stages of life development which can be used by the practitioner for the following: decisions on effective therapeutic interventions and protocols, patient education and recognizing signs of health or dis-ease for sequencing of care as a member of an interdisciplinary team.

Ultimately all lexicons relative to the human body are used to describe the one body. It is depth of understanding and revelations of life and health as both a physical science as well as a spiritual practice that lead a practitioner or doctor of the human body to guide a patient successfully to harness one's life force at any point in the life span no matter if dis-ease is at hand or for the promotion of health.

Lexicon:

1) Structural Hygiene for the Developing Human™
2) Structural Hygienist™
3) "Get Your Head on Straight and all Else Follows"™
4) Compensational Kink
5) Injury Kink
6) Brain Kink
7) Facial Kink
8) Upper Rib Cage Kink
9) Lower Rib Cage Kink
10) Pelvic Kink
11) Shoulder Kink
12) "Be Doctor Free including Me"
13) Pelvic Tilt
14) Pelvic Tilts holding the rib cage
15) Pelvic Rock
16) Angel Wings
17) Toes Taps
18) Sequencing of care
19) SBJ (Sphenobasilar joint)
    Sphenobasilar Subluxation
20) 4 Hands (Multiple Hands)
21) Set on Sphenobasilar Joint

Introduction: Essential Chiropractic has been in existence for 23 years and will continue without ever veering away from a central and solitary focus on subluxation of the OAA joint. A referral based cash practice emphasizing the vitalistic philosophical and scientific tenets laid out in DD and BJ Palmer's books as well as Stevenson's text, and taught and practiced at chiropractic schools for over 100 years. Vertebral subluxation is what differentiates chiropractic from the other major Doctor licenses and the profession must protect our education from being infiltrated and adulterated with diagnostic and therapeutic modalities.

Methods: As described and assessed in the paper HIO in the 21st Century published in the proceedings of IRAPS 2010 in JVSR, this model of chiropractic care is focused on minimizing adjustments and maximizing patient education. This paper tabulated statistical data quantitatively and qualitatively and concluded that the initial year of care following this model includes an average of 7 to 10 visits and 1 to 3 adjustments delivered to the OAA joint. This conclusion was supported by Dr. Felicia Stewart's philosophical thesis that the chiropractor that is bringing people to balance and wellness with the least number of adjustments is demonstrating the chiropractic philosophy the best. In general the accepted idea of chiropractic philosophy is that the body is a self regulating vital organism and that vertebral subluxation (VS) in and of itself is detrimental to the vitality because it impedes and complicates the flow of information to and from the central nervous system. The body mind human being is compensating for postural neurological imbalance deferring energy vital to health.

Discussion: The future of VS-centered care is alive and well in Ferndale Michigan and Perrysburg Ohio where a cash based model markets itself as a *non diagnostic and non therapeutic form of health care*. Dr. Rachel Berent, Palmer 2011 is trained in this model of Structural Hygiene and has been practicing for a little over one year. We will be assessing her stats for a future IRAPS. Vertebral subluxation is what separates chiropractic from physiatry, physical therapy, osteopathy and allopathic medicine. Moving away from vertebral subluxation and towards diagnosis and treatment of conditions has already happened. Chiropractic is at the bottom of a slippery slope and that slide started in the 1990s when Sherman College of Straight Chiropractic surrendered to CCE accreditation and we hit the bottom when the word Straight was removed from Sherman College and the Federation of Straight Chiropractic Organizations. Deductive reasoning shows plainly that the scientific theory and practice of chiropractic focusing on correcting VS is indeed a helpful form of health care. VS in and of itself it is detrimental to health and the patient notes the difference when it is corrected, if this was not true chiropractic would not have survived a virtual media blackout as well as political persecution and subterfuge from within the profession itself.

Conclusion: This profession is at a critical point again although the paradigm of "What is Health Care" is shifting in our favor. Vitalistic philosophy is being supported by scientific theories brought forward by credible scientists like Bruce Lipton and others that agree that deductive reasoning must be paired with inductive reasoning to form a wholistic theory of how and why humans thrive in this earthly environment. More research should be focused on population studies and wellness parameters measured before and after subluxation correction. Continuing to publish case studies of conditions alleviated through chiropractic care is better than nothing but longitudinal population studies and meta studies of similar practice modalities will show the value of chiropractic care as primary health care in generation after generation.

User-Friendly Analysis of the Neurological Interference Component of the Vertebral Subluxation: A Case Study

John Hart, DC, MHSc

Introduction: Accurate and valid analysis of the neurological interference component of the vertebral subluxation (NICVS) is arguably the most important aspect of chiropractic practice. Two low-tech (user-friendly) options for analyzing NICVS are introduced in this case study: 1) Forehead temperature variability (FTV) and 2) manual pulse rate variability (MPRV). Various literature sources exist for forehead temperatures [1] and pulse rate variability, the latter typically using higher forms of technology. [2] The present study modifies these procedures to fit chiropractic practice. Because of their variability component, the low-tech tests are consistent with the adaptability model of vertebral subluxation advanced by Stephenson. [3]

Methods: A 38 year old male was examined on six visits, without spinal adjustment. Forehead temperatures were obtained with an infrared thermometer. Absolute differences between consecutive readings were calculated for FTV. MPRV was obtained by palpating the radial pulse four different times within an approximate two minute period with subsequent calculations of the measurements. Analysis of trends and outliers is made. A calculation of an *NICVS index* is also made by subtracting FTV from MPRV (a lower index is considered healthier than a higher one).

Results: **F**or individual tests, Visit 3 shows the lowest (best) for MPRV while Visit 6 shows the largest value (best) for FTV. For NICVS index, Visit 2 shows the highest (worst) while Visit 3 shows the lowest (best) (Table 1).

Conclusion: This case study introduces user-friendly, low-tech tests and calculations intended for objective NICVS analysis. More rigorous research is needed to determine if these tests are clinically valid.

References:

1. Chan ND et al. A brief report on the normal range of forehead temperature as determined by noncontact, handheld, infrared thermometer. *American Journal of Infection Control* 2005; 33(4):227-229.
2. Bulte CS, Keet SW, Boer C, Bouwman RA. Level of agreement between heart rate variability and pulse rate variability in healthy individuals. *European Journal of Anesthesiology* 2011; 28:34-38.
3. Stephenson, RW. *The Chiropractic Text Book*. Davenport, IA: Palmer School of Chiropractic. 1927.

Table 1. Measurements for NICVS. LF and UF = lower fence and upper fence for outlier analysis. Bold = outlier. NICVS index calculated by subtracting FT from P-D. Example for NICVS index, Visit 4: (17.8 – 0.2) + 4 = 21.6. Smaller indexes are considered healthier than larger ones.

Test	Visit1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	LF	UF
1. MPRV	16.3	**20.3**	**13.0**	17.8	18.0	18.0	14.56	20.06
2. FTV	92.9	93.6	93.0	93.2	92.7	93.6		
Absolute difference		0.7	0.6	0.2	0.5	0.9	0.2	1.0
NICVS Index		**19.6**	**12.4**	17.6	17.5	17.1	16.4	18.2

Regional Synchronization Method: Predicting Vertebral Misalignment Patterns to Provide a More Effective Treatment.

Heinz-Peter Schafer, MPH, MD, Russel E. McArthur, DC, Virginia Schafer, DC, MD

We studied a cohort of individual new patients at two chiropractic offices to identify balance patterns that may provide information for the study and treatment of vertebral misalignments. These patterns were dictated by the Regional Synchronization Method (RSM) that considers the plumb state of the body's frame and how each of the main three regions are affected by the synchronization of the rotational misaligned bones with their balance partners.

Methods: Study subjects were selected from new patient data from two chiropractic offices that currently utilize the regional synchronization method for analysis and treatment of chiropractic vertebrae misalignments. Information was obtained from 118 patient records between July and September 2010. It included demographics, entry complaints (head, upper body or lower body), leg length discrepancies measured in the prone and flexed position, misalignments via X ray analysis, standing hip and shoulder levels, and soft tissue abnormalities. Leg measurements were taken when lying prone and then with knees flexed 90 degrees. X-rays were taken (cervical, thoracic, lumbar and sacral) and each vertebra was examined for a rotational misalignment. This datum point was recorded as an "L", "R" or an "N" (neutral).

Results: Of the 118 patients, 67 patients were female and 51 were male. More white patients (98) participated than black patients (20). The age of males and females were 52.5 ± 18.0 and 50.8 ± 16.7 (mean ± sd, p=0.582). Women had more upper body complaints (i.e. C3 – T12) than men ($\chi 2 = 5.154$, $p = 0.023$). From the RSM, those that had a short leg (Left or Right) that remained short when knees were flexed were expected to have more ipsilateral misalignments than contralateral misalignments, primarily in the cervical and lumbar spines. Those that had a short leg on one side while prone, which became the longer leg when the knees were flexed were expected to have more contralateral misalignments, primarily within the thoracic spine. In the cases of Left – Left, Left – Right, and Right – Right, the hypothesis was supported; however, for the case of the right leg prone and then becoming longer when flexed. (Right - Left), there was no statistically significant difference between the average number of ipsilateral and contralateral misalignments overall. To rule out some confounding factors, an ANOVA was conducted with respect to age for the four groups. There was no significant difference in age ($F = 1.284$, $p = 0.283$). There was also no significant difference ($\chi 2 = 1.675$, $p = 0.643$) with race or gender ($\chi 2 = 2.244$, $p = 0.523$).

Conclusion: The RSM can explain a pattern of misalignments in many cases where the leg length remains consistent and thus provide important information in the treatment of the misaligned vertebrae.

The Effects of Network Spinal Analysis on Children Diagnosed with Autism Spectrum Disorder with Accompanying Speech and Language Deficits

Karen Lumb, Chiropractic Student, Sherman College

Objective: The study objective was to determine if children diagnosed with Autism Spectrum Disorder would improve their language skills while receiving Network Spinal Analysis (NSA) care, a specialized technique in chiropractic.

Methods: Two children were in this study, both children were already diagnosed with autism spectrum disorder, Q, male child, age 3 years 8 months and, S, female child, age 3 years 5 months.

These two children received level 1 of NSA care for one year. NSA care is a specialized chiropractic technique. The chiropractor applies gentle forces along the spine to elicit unique sensory and motor responses, as well as redistribution and release of spinal tension.

The specific outcome that was measured was the Preschool Language Scale-4 (PLS-4); this test is standardized and objectively evaluates expressive and receptive language skills. The PLS-4 was given four times over the one year period; the first test given was within one week of the initiation of NSA care, then again at 4 months, 8 months, and then following the end of their care program.

Results: Expressive and receptive language delays were assessed before, during, and after NSA care. The average range for this test is 85-115, with a mean of 100. Before receiving care, Q presented with a moderate language delay on his Total Language Score, his standard score for auditory comprehension was 77, and for expressive communication his score was 78. S presented with a severe language delay on her Total Language Score, her standard score for auditory comprehension was 59 and for expressive communication her score was 77.

After 4 months of NSA care, both children showed improvements in expressive and receptive language skills. Q's standard score for comprehension went up 4 points and an increase of 5 points on the standard score for expression; S's standard score for comprehension went up 21 points and an increase of 5 points on the standard score for expression. These advances continued throughout the one year study, with results at the end of care, indicating receptive and expressive language skills for one child, Q, to be well within the average range, his standard score for auditory comprehension was 109, and his standard score for expressive communication was 105. S's final test was just below the mean in the average range, her standard score for auditory comprehension was 95, and her standard score for expressive communication was 83. Additionally, improvements in social language, interaction, and symbolic play were reported by the parents.

Conclusions: In these case studies, two children with autism experienced significant improvement in expressive and receptive language skills measured by objective outcomes, as well as subjective improvements in social language, interaction, and symbolic play noted by parents and teachers. The progress documented in this report suggests that NSA care may have positively affected the language development of these children. Additional studies are needed to study the mechanisms that may be involved and how the process of NSA care possibly affects the development of children with autism.

Key words: autism, autism spectrum disorder, expressive and receptive language delay, chiropractic, Network Spinal Analysis, Somato Respiratory Integration.

Determining relative motion between Occ-C1-C2 using the base posterior spinographic model on a single case

Rob Sinnott, DC, FPhC

Much discussion occurs, even today, as to the relative motion between elements of the upper cervical spine. This point of curiosity might be considered using a spinographic view common in Chiropractic for many decades—the Base Posterior view (BP).

This used a single case, found by two Chiropractic examiners to be clear of vertebral subluxation via analysis both pre and post. The subject also had two examiners measure the seated rotation of the head each direction from neutral, as it was felt that rotation in the Base posterior position might not exhibit full rotation. A comparison of the findings from clinical to spinographic was also made. Views were taken using a standard neutral BP, as well as in full active head rotation to both the left and right. Line drawings were then performed and a Magnamensurator used to determine the relative rotational change between the Occ, atlas and axis.

While this case may yield interesting results, it can not be applied broadly to other cases. It is hoped that this single case may suggest need for a larger and more thorough study to settle this question with more concrete data.

An Epidemiological Approach to the Effects Subluxation-Based Chiropractic Care Has on Managing CVD Risk Factors: A Case Study and Review of the Literature

Nate A. Blume, D.C. & Eric L. Zielinski, BA (Presenter)
Student, Life University College of Chiropractic

Objective: 1) To provide a thorough review of the literature concerning cholesterol's relationship to cardiovascular disease. 2) To explain the potential efficacy subluxation-based chiropractic may have in normalizing serum lipid levels. 3) To present the results of a male patient who underwent chiropractic care and subsequently experienced lipid panel normalization.

Clinical Features: 54 year old male first presented into office with chief complaint of dyslipidemia. One month prior to care patient had a lipid panel drawn indicating that his total cholesterol levels were 124, LDL levels were 63, HDL levels were 38, and triglyceride levels were 116. Other complaints included anxiety, constipation, fatigue, irritability, mood swings, neck pain, and stiff neck. Occupational and personal stress levels were reported 8 out of 10. He also indicated suffering from depression. Health history included: angioplasty/stent; double hernia surgery; exploratory lung surgery; hydrocele; three separate rotary cuff operations. Being diagnosed with "high cholesterol" 12 years ago after suffering a myocardial infarction, patient was taking several lipid normalizing medications.

Intervention and Outcomes: Paraspinal surface electromyography, range of motion, and thermography readings were taken on the initial visit, on the twelfth visit one month later, and fifteen days after his second blood draw (4 ½ months into care). In conjunction with the above findings, vertebral subluxations were confirmed at the levels of C1, C5, pelvis, and sacrum. Care plan included thirty one patient visits over a five month period before blood draw confirmed that his cholesterol levels decreased. No reportable lifestyle changes occurred in patient beside chiropractic care. In response to the positive blood work results, the patients' cardiologist reduced prescriptions.

Conclusions: A thorough literature review utilizing various medical textbooks and on-line search engines (the Index to Chiropractic Literature, Mantis, PubMed, and Scopus) revealed that the study of atherosclerosis and cardiovascular disease (CVD) has a rich history, dating back over 2,000 years of recorded etiology. It is important to note that the research is clear in one thing: global authorities unanimously conclude that no one knows, for sure, the cause of CVD. One of the most generally recognized risk factors is the role cholesterol plays in atherosclerosis and subsequent plaque build-up. We offer a brief historical account of the role cholesterol has played in CVD and provide the most recent global data. Our study revealed that the "cholesterol is harmful" hypothesis is not ubiquitously supported by evidenced-based medicine. There appears to be a growing paradigm shift that subscribes to the theory that stress-related inflammatory and hormonal responses are key components to atherosclerotic plaque build-up and subsequent CVD. A review of the chiropractic literature indicates that there is a well-documented relationship between subluxation-based chiropractic care and reduced stress levels, normalized hormone levels, and also normalized lipid levels. This suggests that chiropractic care may have a direct impact in lowering the primary CVD risk factors. This case study warrants further research to substantiate these relationships.

Key Words: Chiropractic; subluxation; cholesterol; hypercholesteremia; dyslipidemia; statins; stress; inflammation; cardiovascular disease, atherosclerosis.

The Effects of Grostic Upper Cervical Care on CVD Risk Factors: A Pilot Study

Richard J. Grostic, D.C., Matthew McCoy D.C., MPH, Eric L. Zielinski, B.A.

Objective: Cardiovascular disease (CVD) is the #1 cause of death globally. Billions are spent in pharmaceuticals to regulate plasma lipid levels and surgeries like angioplasties and stents. The purpose of this proposal is to describe a case-control design to investigate whether chiropractic care can help manage some of the major risk factors associated with CVD.

Background: The proposed study will test the mechanisms presented by Blume and Zielinski wherein they hypothesized that chiropractic care may be effective in managing atherosclerosis and other risk factors associated with cardiovascular disease (CVD) due to its potential effect on inflammatory markers; namely, C-reactive protein (CRP), immune system response(s), and stress.

Methods: Ten subjects will be recruited who are:

- non-smokers
- at least 40 years old
- male or female
- taking at least one lipid normalizing pharmaceutical for at least 1 year duration

Participants are required to have never been under chiropractic care in their lifetime or have not been under chiropractic care for at least 12 months prior to participating in the study. Participants will sign a disclaimer committing to not change any of their lifestyle behaviors during the 6 week study (i.e. they will not alter their diet, exercise, or stress management habits). Two blood draws will be conducted on each patient; one before care is initiated and one after care. Six weeks of upper cervical specific care following the Grostic procedure will be performed on each subject.

Conclusions: This will be the first study to compare CVD risk factors and chiropractic care. By evaluating blood drawn CVD risk panels from selected participants, we hope to confirm that chiropractic has an effect in managing CVD risk factors. As a pilot study, favorable results will justify a larger follow-up study using random control trial design with a larger population.

Key Words: Chiropractic; subluxation; cardiovascular risk factors; dyslipidemia; cortisol; C-reactive protein; stress; inflammation; cardiovascular disease, atherosclerosis.

Interference to the transmission of the mental impulse, also known as Dysponesis

Terry J. Van Dervort, DC, ACP, DPhCS

The purpose of this paper is to confirm the scientific validity of the chiropractic research that took place under the direction of Dr. BJ Palmer. I will show that Dr. George Whatmore's work demonstrating dysponesis actually parallels, step by step, Dr. BJ Palmer's scientific research at the Palmer College research clinic when he demonstrated "interference to the transmission of the mental impulse." I will reference research papers written by Dr. Whatmore in 1958, 1964, and 1968 to demonstrate the procedure used by Dr. Whatmore during his research at the University of Washington Medical School.

I will contrast that information with references from Stephenson's Chiropractic Textbook and Palmer's Chiropractic Clinical Controlled Research.

References:

Palmer, B.J. 1951. *Chiropractic Clinical Controlled Research*. Davenport, IA: Chiropractic Fountain Head.
Stephenson, R.W. 1927. *Chiropractic Textbook*. Davenport, IA: Palmer School of Chiropractic.
Whatmore, G.B., (March 1962) Further neurophysiologic aspects of depressed states: an electromyographic study. *Archives of General Psychiatry*, 6, 243-253.
Whatmore, G.B., Ellis, R.M., Jr. (April 1958) Some motor aspects of schizophrenia: an EMG study. *American Journal of Psychiatry*, 114 (10), 882-889.
Whatmore, G.B., Kohli D.R. (March 1968). Dysponesis: A neurophysiological factor in functional disorders. *Behavioral Science*, 13(2), 102-124.

Jack K. Van Dervort, DC, DPhCS

A CASE FOR "EXPRESSION" AS A MAJOR CONCEPT IN UNDERSTANDING CHIROPRACTIC

A Philosophical Dissection

NEUROLOGICAL TRANSMISSION/ MENTAL IMPULSE "EXPRESSION"

CHIROPRACTIC TERMINOLOGY

Jack K. VanDervort DC, DPhCS

The Dissection:

The Function of Matter.

The function of matter is to express force.

CHIROPRACTIC PRINCIPLE #13

MATTER/ EXPRESSION
NERVE IMPULSE/ MENTAL IMPULSE
MOVEMENT/ INTELLIGENCE
BIO-CHEMICAL TRANSPORTATION/ INTELLECTUAL COMMUNICATION
PHYSICAL CONVEYANCE /NON-PHYSICAL MESSAGE
TRANSPORTATION OF FUNCTIONAL CODE
VIBRATORY SIGNALS OF COGNITION
ELECRICAL STIMUATION OF CHEMICALS (PROTIEN ARRANGEMENT ?)
STIMUI /SENSATION
PROCESS / INFORMATION

1

For an idea to advance, there first has to be a basic conveyance of concepts from one generation to the next. An intellectual and philosophical evolution of ideas and information, becoming provocative to a new generation without losing historic and traditional intentions, an "authentic transmission" as the late Dr. Fred Barge stated. The rub is to advance an idea ethically, without purely political motivations or pandering to outside influences. Change for the sake of some kind of pseudo-professional acceptance would seem pale beside a change that would truly bring newfound appreciation to historic, innate truths.

Philosophical evolution in Chiropractic may begin with an evolution of terminology as a beginning. Chiropractic terminologies that span a century plus, in years, may themselves have lost their inherent intention due to scientific advances and societal changes. Another specific complicating factor in the evolution of chiropractic terminology, is that it has always been unique, due to its unique basis and point of view within the scientific and medical communities.

The daunting task for chiropractic, is to not only become relevant in a contemporary sense but also to try to bridge the gap between vitalistic chiropractic thought and mechanistic medical thinking. Then there is complication of the holistic chiropractic rational in healthcare conflicting with the reductionistic approach in modern medicine.

The purpose of terminology research & evolution is to elevate the professional discourse, (intra +inter) and to elevate the doctor, patient discourse.

He who communicates wins and congruency between what one thinks, says and ultimately does, gives strength to an idea.

CONGRUITY:

Chiropractic knowledge → Chiropractic speak → Chiropractic result
= Chiropractic Appreciation→ Patient retention/referral

INCONGRUITY:

Chiro/Med-knowledge → ADULTERATED Chiropractic speak → WEAK Chiropractic result = WEAKER Chiropractic Appreciation→ POOR Patient retention/referral

"EXPRESION"AS A MAJOR CHIROPRACTIC CONCEPT

INTETECTUAL EXPRESSION

~ *The philosophical dissection*

Meaning of intelligence
Intention of information
Purpose conveyed
Meaning revealed
Ideas exposed
Concepts illustrated
Abstractions manifested
Intelligence expressed as function

ILLUSTRATION & METAPHORS OF SUBLUXATION & EXPRESSION

Foot on hose or rheostat is poor illustration for subluxation
Short circuit is better: Contiguous electronic signal expressed as light is transformed to "popping noise & sparks."
"Hiccup" in function. A moment without light until correction is made restoring electrical integrity.
COUNTENANCE, VISAGE, VIGOR, THE "CUT OF ONES JIB" may be the expressions of health in a body adapting to its current environment and situation in apparent ease.

TONE IS THE "REFLECTION OF EXPRESSION"

CHIROPRACTIC

~ Founded on Tone ~

Tone is the 'reflection of expression' of the intelligence and emotion of a moment in time.
Tone is the chiropractic symptom / expression is the function.
Expression is the oblique word/ concept in chiropractic
Chiropractors are the "expressionists" in the medical sciences.

The "expression" of: function, mental impulses, health, life…

Expression is much more than mere feelings. Expression relates more substantially to how circumstances and function are *exhibited or portrayed.* (Two seemingly healthy men can swing a bat in the exact same basic stance and manner but with different portrayals of the function; a mighty swing or a lethargic whiff.) Adverbs like vigorous and lackluster come to mind

EXPESSION RELATIVE TO CHIROPRCATIC SUBLXATION

With VERTEBRAL SUBLUXATION
comes a deterioration of VITALISM
downward, towards MECHANISM
EXPRESSION is diminished
and REDUCTISTIC SYMPTOMS become more apparent.
(The Large Coordinated, Beautiful Idea of Health disorganizes into small miserable symptoms.)
Clear the subluxation, restore expression
& reductionistic symtopmatology
becomes less appropriate as a consequence.

Chiropractic facilitates the restoration of the expression of the very vitality that makes us human. *~ Unlimited Vital Capacity Appreciation*

4

EXPRESSIONISTIC vs EVIDENCE BASED CARE

In 1895 when DD Palmer first gave credible recognition to the invisible forces of intelligence, that flowed within and throughout the body, he restored integrity to the full orbed consideration of mans existence, to the proper place, within his environment, beyond life's limited physicality. That acknowledgment was that man was comprised of both intellectual and physical properties and that the crux of the human condition was to be found in the dynamic interface between the two. *

With that one observation and deduction, DD Palmer discovered what was lacking in the medical paradigm of that era and still is lacking in the medical paradigm today. That perspective became the uniqueness of chiropractic care, distinguishing it from all other health care attempts

*The ever changing expression of that interface becoming the "Tone" of chiropractic

Evidence based boundaries eviscerates the very profundity of chiropractic necessity. Chiropractic was born out of the limited, evidence based medical paradigm that failed to capture the complexity of the human condition in healthcare.

(Couldn't DD Palmer's original question be paraphrased, "Why, when all the physical evidence has been gathered and it all seems the same in relative nature, why are there still different outcomes from the same bits of empirical evidence.") Anecdotal expression may be more appropriate and capable to capture the invisible forces that animate function out from physical evidence.

Chiropractic is appreciative of evidence based practice while also realizing the limitations of that model in delineating the complexity of the human condition relative to healthcare

"Health" and "life" are not physical constructs but rather "ideas" expressed into manifestations of physical function.

If there is any credibility in the above statement then one knows why mentally disciplined choices benefit physical health in the educated intellectual realm and why vertebral subluxation subverts the intellectual impetus of physical health in the innate intelligence realm.

"HEALTH" AS A WHOLISTIC "EXPRESSION" OF AN IDEA

HEALTH IS AN "IDEA" with an incarnate aspect, expressed physically.
Health is not a physical entity or circumscribed condition .
Health is not confined to physical boundaries
Health is complete comprehension and facilitation of intelligence in matter, expressed in relative ease and beauty.
Tone is reflected in the interactive dynamic between the physical and nonphysical entities in the idea of health (The expression of intelligence through matter)
Is intelligence being appropriately expressed through matter?
Or is there interference in the dynamic between intelligence & matter?
Innate Intelligence has complete comprehension of the idea of health.
Educated intelligence has a limited comprehension of the idea of health.
CHIROPRACTIC IS UNIQUE in that it alone facilitates integrity to the "Idea of Health," both physically and intellectually without side effect.
Health is a solely positive (intellectual), hopeful (emotional), and functional (physical) construct.
Only totally appreciated by innate intelligence.
Limitations of matter (Limited physicality)

Limitations of philosophy (Educated mind)

"How good do you feel today?" is the chiropractic question, not rate your pain.

6

"EXPRESSION" IN USE & DEFINITION

TRADITIONAL

"A subluxation is the condition of a vertebra that has lost its proper juxtaposition with the one above or the one below, or both; to an extent less than a luxation; ***which impinges nerves and interferes with the transmission of mental impulses"***

RW Stephenson DC
Chiropractic Text Book. *page 2 1927*

EVOLVED

"A subluxation is the condition of a vertebra that has lost its proper juxtaposition with the one above or the one below, or both; to an extent less than a luxation; ***which concusses* the body's neurology, interfering with the transmission of nerve impulses and interfering with the expression of mental impulses"***

(*Concussion of Forces)

Jack K VanDervort DC, DPhCS
2012

BEAUTY IS THE DOOR TO KNOWLEDGE
ART IS THE KEY
ILLUMINATION, THE RESULT

Beauty unlocks the door of knowledge. Art supplies the key. ILLUMINATION, the result.

The beauty of life is found in exquisite link of '*moments of function*',
gathering intelligence,
coordinating intelligence,
assembling intelligence
ultimately, expressing intelligence.
Nano-second to nano-second.

Health is exhibited in the coordinated flow/chain
of neurologically charged, ↯
intellectually inspired ($E=MC^2$)
moments & events
expressing functional intelligence in ease.

7

Straight Mixers and Mixed up Straights: The End of the Straight/Mixer Dichotomy. An Exploration of Terminology to Describe Different Types of Chiropractors

Matthew McCoy DC, MPH

The chiropractic profession has historically been mired in an internal battle to define itself based on what individuals and groups of chiropractors do in practice. Traditionally, and even to this day, the terms “Straight” and “Mixer” have been used to divide chiropractors into two broad classes. Other attempts have been made to classify chiropractors as Broad, Focused or Middle Scope. The purpose of this paper is to describe the contemporary spectrum of terms used to describe who chiropractors are and what they do. The argument is made that one can no longer describe the profession using a simple dichotomy but that in reality the profession is made up of a very broad spectrum of practice styles and scope. The implications of this for the future of chiropractic education and practice are discussed.

An Epidemiological Approach to the Effects Subluxation-Based Chiropractic Care had in Managing a Three Year Old Girl with Autism, Acid Reflux, Bilateral Head Pain, Seizures, and Vomiting: A Case Study and Review of the Literature

Staci Jean Borkhuis, D,C. & Eric L. Zielinski, B.A.

Objective: We are in the midst of a worldwide Autism Spectrum Disorder (ASD) epidemic, 1 out of every 150 children are affected. This paper offers some common diagnostic criterion applicable to all health care providers and tells the story of a typical child battling autism through a case-study format. We present the findings in which a three year girl received great results and symptom relief from common neurological autism manifestations, acid reflux, vomiting, and seizures as a result of subluxation-based chiropractic care.

Clinical Features: Thirty five month old girl presented into office with the chief complaint of bilateral, intermittent, dull pain of a moderate level in her head. Secondary complaints were all seemingly related under various presentations of ASD. She was born prematurely at 28 weeks weighing 2 pounds, 5 ounces. After struggling for two years with the child's seemingly abnormal behavior and significant developmental delays, her parents decided to take her in for a thorough developmental evaluation. The Modified Checklist for Autism in Toddlers (M-CHAT) was administered and five critical items were failed, though, it is noted that she achieved all developmental milestones at typical times, with the exception of talking.

Intervention and Outcomes: Subluxation-based specific chiropractic care was administered to the patient which resulted in complete resolution of bilateral head pain, acid reflux, vomiting, frequently waking up during the night, and significant improvements in neurogenic ASD manifestations; i.e. calm behavior, increased eye contact, happier demeanor, improved attitude, and an initiation to sound out words. After five months, the patent did not relapse in any of these areas and it was reported by her pre-school teachers that she had a significant increase in focus and attention; as well as more interest in toys, books, and playing more quietly. The following two months, the patient experienced a significant relapse in acid reflux, vomiting, and waking up during the night presumably because she was not under chiropractic care. Interestingly, during this time, she began to verbalize words at home in a delayed manner; though, still not imitating words or motions upon request. After resuming care, the acid reflux symptoms were resolved again within two weeks. She continues to progress greatly neurologically as is evident with a significantly increased vocabulary, continued improvement in attention and focus, and complete lack of epileptic episodes.

Conclusions: As seen in the literature ASD children generally have GI issues preventing them from properly digesting and metabolizing the food they eat. Consequently, it is has been suggested that nutritional deficiencies create malnourished brains which can trigger genetic tendencies to ASD. Subsequently, the relationship between acid reflux resolution and chiropractic care cannot be ignored. We suspect a direct correlation in increased nutritional status due to GI correction and decreased ASD symptoms. We purport that chiropractic care should be a first-step and continuing approach in ASD management. By working closely together with Occupational Therapists, MD's, and Psychiatrists from the onset, we expect to see far greater improvement by implementing chiropractic than without.

Key Words: Chiropractic; vertebral subluxation; thermography; motion palpation; pediatric; developmental delay; autism; ASD; seizures; GERD; sleeplessness.

Correlation between Heart Rate Variability and Novel, User-Friendly Pulse Rate Variability Methods *

John Hart, D.C., MHSc

Introduction: Higher tech methods of neurological analysis (e.g., heart rate variability) for assessing the neurological interference component of the vertebral subluxation (NICVS) are typically performed periodically (e.g., every 6 visits). Valid lower-tech methods of NICVS would allow analysis for interim visits. At present, options for such lower-tech methods are few.

In this study, a novel, low-tech method of manual pulse rate variability (MPRV) is compared to the higher-tech autonomic measure of standard deviation of normal-to-normal beats (SDNN) in heart rate variability. A larger SDNN value reflects greater variability and is considered healthier compared to a lower SDNN. [1] Neuro-variability assessment is consistent with the vertebral subluxation (VS) adaptability model advanced by R.W. Stephenson. [2] An earlier pilot study on MPRV, with an initial sample size of 13 did not show statistically significant correlations. [3]

Methods: In addition to the previous 13 volunteers, a total of thirty-two participants were examined with heart rate variability (SDNN) and MPRV. The low-tech method (MPRV) consists of four radial pulse measurements taken within a two minute period. The measurements are analyzed for their: a) average and b) difference between the largest and smallest counts. This difference is subtracted from the pulse average. The manual pulse mean (MPM) and variability (MPRV) are compared to SDNN using correlation analysis and inverse correlations are expected.

Results: Both methods (MPM and MPRV) showed moderate strength, statistically significant inverse correlations with SDNN.

Conclusion: Chiropractors may have new options for assessing NICVS on every patient visit in the form of MPM and/or MPRV.

Acknowledgement
* Full paper in review at *Annals of Vertebral Subluxation Research*

References:

4. Lauer MS. Autonomic function and prognosis. *Cleveland Clinic Journal of Medicine* 2009; S18-S-22.

5. Stephenson, RW. *The Chiropractic Text Book*. Davenport, IA: Palmer School of Chiropractic. 1927, p. 43.

6. Hart J. Modified tests for heart rate variability: A preliminary study. IRAPS 2011. Sherman College of Chiropractic. Abstract available from *Annals of Vertebral Subluxation Research*, November 28, 2011.

Upper cervical chiropractic care for chronic migraines and vertigo: a case report

Michael Lenarz, D.C., Christopher Perkins, D.C., Mychal Beebe, D.C

Introduction: Migraine headaches are debilitating and present a burden to the US population and healthcare system. Prevalence studies estimate that migraine affects 15%–25% of women and 6%–8% of men, while more than 2.5 million people in North America have at least one day of migraine per week (1, 2). Use of chiropractic demonstrates positive results of headache symptom relief with small clinical trials in nonspecific adjusting of several vertebral segments (3, 4).

A 54 year-old female patient entered the office with complaints of migraines 1-2 times per week and extreme chronic neck pain and vertigo for the past 10 years. She was injured in a motor vehicle accident ten years prior to her first visit in our office. Written consent from the patient was obtained allowing us to publish her personal health information without divulging personal identifiers.

Methods: Examination also revealed increased postural distortions, with a 5/8 inch left lateral sway, 3/4 inch right head tilt, 5/8 inch left shoulder drop and a ½ inch hip drop. The RAND 36-Item Health Survey was used as an outcome assessment on health-related quality of life. A paraspinal thermal analysis was performed with the Tytron C-3000 from the level of C7 to the occiput. The patient's initial paraspinal scan contained thermal asymmetries as high as 1.15 degrees C. According to cervical thermographic guidelines, thermal asymmetries of 0.5 ºC or higher indicate abnormal autonomic regulation or neuropathophysiology (5-11).

The Blair upper cervical chiropractic technique protocols were used to guide treatment for this patient (12-14). The patient was seen 19 times over a period of 12 weeks. She received 3 Blair spinal manipulations to her C1 during this time.

Results: The patient was seen 19 times over a period of 12 weeks. She received 3 Blair spinal manipulations to her C1 during this time. A post adjustment thermal scan was performed 12 hours after the initial adjustment and revealed a thermal difference of only 0.37 degrees C. There was significant improvement in the RAND-36 scores (see tables 1 & 2 below).

The patient reported having 1 migraine 2 weeks after the first manipulation. Since that time, she has reported no migraine episodes, neck pain or vertigo.

Table 1

Physical Functioning	85
Role Limitations Due to Physical Health	0
Role Limitations Due to Emotional Problems	100
Energy/Fatigue	35
Emotional Well-Being	64
Social Functioning	75
Pain	57
General Health	55

*High score defines a more favorable health state 0-100

Table 2

Physical Functioning	100
Role Limitations Due to Physical Health	100
Role Limitations Due to Emotional Problems	100
Energy/Fatigue	80
Emotional Well-Being	88
Social Functioning	100
Pain	80
General Health	85

*High score defines a more favorable health state 0-100

References:

1. Lipton RB, Stewart WF (1998) Migraine headaches: Epidemiology and comorbidity. Clin Neurosci 5: 2–9.
2. Bigal ME, Lipton RB. The epidemiology, burden, and comorbidities of migraine. Neurol Clin 2009 May;27(2):321-34.
3. Tuchin PJ. A twelve month clinical trial of chiropractic spinal manipulative therapy for migraine. Australas Chiropr Osteopathy 1999 Jul;8(2):61-5.
4. Tuchin PJ, Pollard H, Bonello R. A randomized controlled trial of chiropractic spinal manipulative therapy for migraine. J Manipulative Physiol Ther 2000 Feb;23(2):91-5.
5. International Thermographic Society. Thermography protocols. In: Amalu W, Tiscareno L. Clinical neurophysiology and paraspinal thermography: module 2- applied upper cervical biomechanics course. Redwood City, Calif: International Upper Cervical Chiropractic Association; 1993. p.67-70.
6. American Academy of Thermology. Thermography protocols. In: Amalu W, Tiscareno L. Clinical neurophysiology and paraspinal thermography: module 2- applied upper cervical biomechanics course. Redwood City, Calif: International Upper Cervical Chiropractic Association; 1993. p.67-70.
7. American Academy of Medical Infrared Imaging. Thermography protocols. In: Amalu W, Tiscareno L. Clinical neurophysiology and paraspinal thermography: module 2- applied upper cervical biomechanics course. Redwood City, Calif: International Upper Cervical Chiropractic Association; 1993. p.67-70.
8. Uematsu, E, et al. Quantification of thermal asymmetry, part 1: normal values and reproducibility. J Neurosurg 1988; 69: 552-555.
9. Feldman F, Nicoloff E. Normal thermographic standards in the cervical spine and upper extremities. Skeletal Radiol 1984; 12: 235-249.
10. Clark RP. Human skin temperatures and its relevance in physiology and clinical assessment. In: Francis E, Ring J, Phillips B, et al. Recent advances in medical thermology. New York: Plenum Press, 1984, 5-15.
11. Uematsu S. Symmetry of skin temperature comparing one side of the body to the other. Thermology 1985; 1:4-7.
12. Hubbard T. Blair upper cervical chiropractic technique. Edition 5: 2006: Davenport, IA. Self Published
13. Todd Hubbard, Joel Pickar, Dana Lawrence, Stephen Duray Reliability of the Blair Upper Cervical Radiographic Analysis for the Base Posterior View: A Feasibility Study-
14. Hubbard, Todd A.; Vowles, Brett M.; Forest, Tom. Inter- and intra-examiner reliability of the Blair protractoview method: examination of a chiropractic radiographic technique. Journal of Chiropractic Medicine, June 2010, Vol. 9 Issue: Number 2 p60-68.

Resolution of Colic in an Eight Week Old Infant Undergoing Chiropractic Care: A Case Study

Ron R. Castellucci, B.S., D.C., ACP

Objective: To report the effectiveness of chiropractic care using light impulse finger adjustments on an 8 week old newborn female with diagnosed infantile colic.

Clinical Features: An 8 week old female patient presented to the office with classic symptoms of colic. It was reported that the patient cried for up to 5 hours at a time and that she appeared to wince in pain upon making a bowel movement. The crying spells often lasted well into the night. These complaints resolved after three chiropractic adjustments. After one year mom reports that the condition has not returned and the patient is a healthy, thriving one year old.

Interventions and Outcomes: The treatment protocol was limited to chiropractic spinal analysis using static, motion and muscle palpation followed by chiropractic care using light impulse finger adjustments in the supine and side lying positions. The segmental levels that were addressed were C1 and T11. Plan of care included 8 visits over 4 - 6 weeks. Improvements were seen after one visit and complete resolution of the symptoms were seen after 8 visits.

Conclusion: The case of an 8 week old infant with colic is presented. Significant improvement followed by complete resolution of the condition following the initiation of chiropractic care. More research is certainly warranted in the area of colic and the benefits of chiropractic care. The minimally invasive approach of chiropractic adjustments and results demonstrated in the literature suggests that chiropractic must be included in the treatment protocols for all infants who present with the condition of colic.

Key Words: Chiropractic, vertebral subluxation, colic, infantile colic, adjustment, manipulation, muscle palpation, somatovisceral, somatoautonomic, gastrointestinal

Chiro-Dentity and Our Lexicon

J. Alan Lovejoy, D.C., LCP, FICA

Chiro-Dentity and Our Lexicon

Submitted by: J. Alan Lovejoy,D.C.,LCP,FICA

Every profession has its own terminology. It identifies that profession as separate and distinct. Chiropractic has its own lexicon and "it" identifies our profession as separate and distinct.

Over the years, in an attempt to re-define our identity, compromise has led to the incremental erosion of Chiropractic terminology. The result, a devaluation of our philosophy, our terminology and our purpose. This is not a new revelation. Some of our greatest leaders, BJ, Barge, Crowder as well as others, then and now, have fired warning shots across the bow of this profession. They have made attempts to awaken us from a professional slumber. We need to heed these warnings. Our lexicon identifies our heritage, our philosophy, our purpose and our daily doctor/patient interactions. This cannot be lost; it is an integral part of WHO we are as a profession. It is the very essence of our being. Our philosophy will become so weakened and insignificant it will cease to exist. It is a critical issue.

Is this happening, an undeniable yes should roar throughout this profession! Look at some of the current literature and see if you can find reference to subluxation. Look into the use of the word adjustment. In 1980 a paper was presented by E.A. Morinis, DPhil, and one of the many opinions brought forth stated "Disposed of its Philosophy, Chiropractic is disposed of its uniqueness and perhaps its future." Yet another warning shot from outside the Chiropractic profession.

What about our history/heritage? Chiropractic history is replete with our terminology. It is a fact that Chiropractic history is where our terminology originated. If this terminology is watered down and our terms substituted with other terms, would the importance of our history become nothing more an epic of the past? A back in the day reference? Our heritage and our terminology are inseparable. D.D. was adamant that he did not manipulate, he adjusted. It is found throughout the historical documents. Someone once remarked, "A people who lose their heritage, lose their purpose." Are we losing our heritage through incremental erosion of out lexicon? Will we lose our purpose? History indicates this as a possibility. Our profession must not lose sight of our purpose by allowing the use of non-specific non-descriptive terminology to define it. If we do allow this, we may become a non-specific, non-existing separate healing art, having lost our identity. Any other professions come to mind now? It has occurred, and is occurring, a little at a time. It has to be halted.

I heard a story one time emphasizing the importance of words and usage. As the story goes when someone remarks ' your beauty makes my world stand still' it is nicer than saying 'you have a face that stops a clock.' So here is the final question, What can WE DO? A few years ago I would have said, little by little, incrementally, we can refuse to allow compromise. Compromise can be defined as the raising of evil and the lowering of good. It has become so common for some to use terminology that isn't ours and we may not even realize it. A Chiropractor states "I manipulated C-1." Would it be wrong to say "you mean you adjusted C-1?" It can be done good humored, but in pointing it out it may help regain lost ground. It may help other Chiropractors realize the way our terminology usage is headed. We, you and I, need to become unified in this process. Try a search using the word subluxation and few will be found, use the word manipulation and there will be many. Why? Because we have allowed it to occur.

Oh it is just semantics; no it is not, it is a matter of identity. We, you and I, need to lead a grassroots effort to reclaim Chiropractic terminology. Our professional identity depends on our willingness to not accept, 'it means the same thing'. We know it doesn't. We need to unite in communicating our terminology properly. It is being done some, but we need to do more in our writings, our talks, our communication with each other and especially communicating with students and patients. We haven't lost, but we cannot relax. We have been so busy about the practice of Chiropractic and life; we did not recognize the incremental erosion. We can turn this around. We must turn this around, it is the Identity of Chiropractic.

[1]E. A. Morinnis,DPhil, The Journal of the CCA/Volume 24 No.3/September 1980

How Complexity of Thinking has Shaped Chiropractic's Philosophy

Simon A. Senzon, M.A., D.C.

Part 1: The Roots and Conflicts inherent to Chiropractic's Holistic Philosophical Approach

1. Establishing the most recent research on adult human development
2. Exploring these parameters of thought in regards
    a. D.D. Palmer's original conception of chiropractic
    b. The concepts of D.D.'s successors:
        i. B.J. Palmer
        ii. John Craven
        iii. RW Stephenson
        iv. Other early chiropractic philosophers
3. Exploring the early controversies in chiropractic
    a. 1924 NCM Debacle
    b. Establishment of Educational Standards
4. A discussion of the subsequent development of the philosophy
    a. B.J. Palmer's later ideas
    b. Conflicting approaches to B.J. Palmer

Part 2: Expanding on the central tenets

1. The importance of John Craven to chiropractic's early philosophy
2. The role of the National school and their influence in shaping the way philosophy is taught in chiropractic education.
3. Recent critiques of philosophy and ways to understand them
    a. Keating's work
    b. Reed Phillips
    c. Joe Donahue
4. Ways that chiropractic philosophy can evolve in the future.

Case Study

Restoration of the Cervical Curve and Improvement in Neurological Function in a Patient Following Network Spinal Analysis

Tara Rohrbach DC
Private Practice of Chiropractic, Seattle, WA

Daniel Knowles DC
Private Practice of Chiropractic, Boulder, CO

Richelle Knowles DC
Private Practice of Chiropractic, Boulder, CO

Abstract

Objective: To describe the restoration of a cervical curve following Network Spinal Analysis™ (NSA) chiropractic care in a patient with neck pain.

Clinical Features: The patient presented with a chief complaint of neck pain. Radiographs were taken and demonstrated an Atlas Plane Angle measurement of 12° and a cervical Absolute Rotation Angle (ARA) of 10°, representing a cervical kyphosis.

Intervention and Outcomes: The patient received NSA care that consisted of Network adjustments entailing light contact to specific regions of the patient's spine. Follow up radiographs were taken after one year of care. The radiographs demonstrated significant sagittal curve improvement with an Atlas plane line measurement of 32° and an Absolute Rotational Angle (ARA) of -27°.

Conclusion: Successful chiropractic care was described in this case by improved measurements in the cervical curve. The Atlas plane line improved by 18° and the Absolute Rotation Angle improved by 37°. More research is warranted in this area.

Key words: *cervical curve, kyphosis, lordosis, Network Spinal Analysis, chiropractic, entrainment, tensegrity, subluxation, surface electromyography, thermography*

Introduction

In the last few decades, research has illustrated the importance of the natural contours of the spinal column with regards to one's symptoms, pain, and overall health.[2] The cervical curve develops as an anterior curve (lordosis) in infancy when the infant learns to hold his head upright.[3] When the normal lordotic curve of the cervical spine is compromised, the proper biomechanical function of the spine becomes disrupted, altering the body's ability to transmit forces through the body to decrease the chance of injury to a localized area.[2]

Symptoms associated with an abnormal cervical curve may include cervical-brachial neuralgia, numbness, vertigo, nausea, paresthesia, occipital neuralgia, suboccipital pain, vascular headaches, migraine headaches, and muscle spasm with limited cervical range of motion.[4]

With this in mind, some chiropractic techniques have been developed in an effort to address the biomechanical integrity of the cervical spine by focusing on the characteristics of the cervical curve. Most commonly, CBP, Pettibon and Pierce have focused on the restoration and correction of the cervical curve via spinal adjustments, mirror-image adjusting, cervical extension-traction, 3-point bending, cervical compression traction with a posterior –anterior transverse load at mid-neck, and a headweight device.[2,5]

At the heart of the chiropractic philosophy is the premise that the body has the innate ability to heal and self correct. However, the efficacious correction of the cervical curve has always been thought to require manual or mechanical

P 300 WAVE OUTCOMES; SUBLUXATION BASED CHIROPRACTIC IN RESIDENTIAL ADDICTION TREATMENT; REVIEW OF OUTCOMES FROM A RANDOMIZED CONTROLLED TRIAL

Charles Vaden, Matthew McCoy, D.C., MPH, Joyce Sayers D.C., Jay Holder D.C.

INTRODUCTION: The P300 ERP is a correlate of neurocognitive function, meaning that a subject's cognitive processes may be qualitatively and quantitatively assessed by measuring his or her P300 wave components as found on an EEG. Large amounts of research has been conducted pertaining to the use of this biomarker for diagnosing and assessing conditions such as Alzheimer's, ADHD, Addiction, Anxiety, Dementia, Depression, Dyslexia, Narcolepsy, Huntington's Disease, Parkinson's, Schizophrenia, Stroke, Supranuclear Palsy, and Traumatic Brain Injury. (1)

To date, only one case study has been conducted assessing the use of the P300 ERP in Chiropractic practice. (2) Research is needed to determine if use of the P-300 wave has significance as an outcome assessment in the addiction treatment setting and if use of the P-300 wave has significance as an outcome assessment of subluxation based chiropractic care.

METHODS: Two groups of approximately 30 male subjects in residential addiction treatment are studied for 90 days. Both groups receive traditional addiction treatment. One group (Chiropractic) will receive Chiropractic adjustments using Torque Release Technique and the Integrator adjusting instrument three times per week. The other group (Placebo) will receive a sham adjustment three times per week. Both groups will be assessed with the Beck's Depression Inventory and the Speilberger State-Trait Anxiety Questionnaire at intake and every 30 days. P300 analysis will be taken at intake and every week for both groups. The Drug Abuse Screening Test will be implemented at intake for all subjects. Subject Retention Rate will be recorded for each group.

RESULTS: This presentation will review preliminary outcomes from this RCT. Correlation will be measured for both groups concerning P300 amplitude and latency and each of the following: retention rate, depression scores, anxiety scores.

REFERENCES

1. Polich, J., Herbst, K. L. (2000) 'P300 as a clinical assay: rationale, evaluation, and findings', International Journal of Psychophysiology, 38(undefined), pp. 3-19.

2. Holder J, Shriner B. Subluxation Based Chiropractic Care in the Management of Cocaine Addiction: A Case Report. A Vert Sublux Res 2012.

Incorporating Salutogenesis in a New Chiropractic Paradigm

Joe J. Donofrio, D.C. ACP

Introduction: Chiropractic's position within the healthcare system being redefined. The profession must consider incorporating new and useful healthcare paradigms that have the potential to both preserve that which makes us separate and distinct from other professions as well as position us favorably within accepted future healthcare models. To this end, the salutogenic model should be considered for incorporation into chiropractic education and practice.

Discussion: There has been some investigation in chiropractic circles regarding the role that the salutogenic model may indicate for chiropractic practice. Aaron Antonovsky first developed the salutogenic model in 1979 and although it's principles are finding root in medical sociology and psychobiology, to date it has not been of significance within the mainstream allopathic healthcare system. Chiropractic principles such as dis-ease, survival values, the tension between external invasive and internal resistive forces and momentum are similar in meaning to terms developing within the salutogenic framework

New standards in chiropractic education and impending US healthcare reforms present opportunities and obstacles that require advanced thinking and conceptual frameworks that will position chiropractic for the next several decades.

Conclusion: The profession is on the precipice of a paradigm shift. We cannot hold it back, but we can use the mounting energy to redefine chiropractic in salutogenic terms in order to maintain our separate and distinct principles and practices.

References

Chistopher Kent. (2011). Giving Birth to Health. Dynamic Chiropractic, 29(07). Retrieved from http://www.dynamicchiropractic.com/mpacms/dc/article.php?id=55227

McCoy, M. (2011). Evaluation of a Standardized Wellness Protocol to Improve Anthropometric and Physiologic Function and to Reduce Health Risk Factors: A Retrospective Analysis of Outcome. The Journal of Alternative and Complementary Medicine, 17(1), 39–44. doi:10.1089/acm.2010.0113

Antonovsky, A. (1979). Health, Stress and Coping (1st ed.). Jossey-Bass Inc Pub.

Stephenson, R. W. (1927). Chiropractic Text Book (1948 Ed., Vol. XIV). The Palmer School of Chiropractic.

Manual of Policies of the Council on Chiropractic Education, Inc. (2012, January). Council on Chiropractic Education. Retrieved from http://www.cce-usa.org/uploads/2012_CCE_Manual_of_Policies.pdf

Attitudes of Students and Recent Graduates of Chiropractic Educational Programs Regarding Curricular Content, Preparation for Practice and the Future of the Chiropractic Profession: A Delphi Consensus Process & Survey

Matthew McCoy D.C., MPH, William Decken D.C., LCP, Christopher Kent D.C., JD, Joel Alcantara BSc, D.C., Steve Tullius D.C. Arno Burnier D.C.

Background: The chiropractic profession is experiencing challenges to its educational delivery system driven by internal and external forces. It is felt that exploring the attitudes and concerns of students and graduates who have recently experienced the chiropractic educational process will yield insights to assist decision makers and policy makers. To that end, it is proposed to develop a survey to explore the attitudes and concerns of students and recent graduates regarding chiropractic program curricular content, preparation for practice and the future of the chiropractic profession.

Methods: A Delphi Consensus process will be used to develop the survey questions. Delphi panel members will be recruited through personal contacts and contacts at various chiropractic institutions and trade organizations. The Delphi process will be coordinated via e-mail and Survey Monkey and the final survey will be distributed on line through social networks as well as through contacts at various chiropractic colleges and trade organizations.

As many as 50 Delphi Panel Members will be recruited and it is expected that 1000 respondents will be included in the actual survey. The actual survey should take no longer than 15 minutes to complete. Eligibility criteria for Delphi Panel Members are that they are one or more of the following: chiropractic students, recent graduates of chiropractic programs, practicing chiropractors, instructors at a chiropractic institution. The only eligibility requirements for completing the survey are that the respondent be either enrolled in a chiropractic training program or that they have graduated within the past two years.

Participants in the Delphi Consensus process will be asked to submit proposed survey questions which will then be assembled for review by the complete Delphi Panel until consensus on the final list of survey questions is arrived at. The Delphi process will be coordinated via e-mail and Survey Monkey. Respondents to the final survey will be asked to answer the series of survey questions developed through the consensus process via Survey Monkey.

Delphi Panel Members will agree to their names being used in the process and any possible future publications or presentations. Names and other identifying information will not be gathered of the respondents to the final survey. IP addresses will not be gathered. Basic demographic information will be collected as will year of graduation and school but this will not be tied to names or other identifying information of any persons taking the survey.

Conclusion: One of the largest groups of stakeholders in the chiropractic educational system is the approximately 12,000 students currently enrolled in doctor of chiropractic programs. In addition, there are several more thousand recently graduated chiropractors who are entering the marketplace. It is suggested that these segments of the profession have been overlooked or ignored in the recent debates surrounding the future of chiropractic education and this survey endeavors to solicit information from them which might be valuable to decision makers.

A New Direction in Chiropractic Education.

Christopher Kent, D.C., J.D.

ABSTRACT: Higher education is facing significant challenges. Student loan debt in the United States now exceeds credit card debt. The current economic model of higher education is not sustainable. Chiropractic education has an opportunity to improve educational outcomes, reduce costs, and provide a model for sustainable professional education. This paper explores alternatives to the "one size fits all" model of professional education. The use of distance learning, regional clinical training centers, asynchronous course delivery, and mixed-mode delivery for a chiropractic first professional degree program is presented. Challenges and opportunities associated with this model are discussed.