

Proceedings

11th Annual SOT Research Conference Proceedings: Nassau, Bahamas, February 27 – March 1, 2019

T Blook
CL Blum
WJ Boro
R Hamel
K Nichols
MG Pick
J Scoppa
A Tovar

Abstract (List of Papers)

- Chiropractic care of professional hockey player suffering from multiple concussions: A case report
- A chiropractic and dental perspective the three faces of forward head posture: Differential diagnosis is the key for optimal outcomes
- Intervention in gall bladder dysfunction through chiropractic adjustment and nutritional therapy: a case report
- Intervention in tachycardia through chiropractic adjustment, sacro occipital technique's chiropractic manipulative reflex technique: a case report
- SOT cranial therapy for the treatment of pediatric torticollis: A chiropractic case report
- Two sisters with plagiocephaly treated with one treated with a cranial band and the other with sacro occipital technique (SOT) cranial care: A comparative case report
- Immediate changes to lumbosacral dural regions upon bilateral alternating pressure to the parietooccipital (asterion) cranial region: A dissection study
- Hypertensive 80-year-old male treated with cranial therapy: A case report
- Conservative chiropractic management of 13-month old patient with facial palsy: A case report

**Chiropractic care of professional hockey player suffering from multiple concussions: A case report. Sacro Occipital Technique
Research Conference: Nassau, Bahamas. 2019: 13-18**

Bloink T & Blum CL

Objective: Awareness of sport related concussion/post-concussion syndromes are becoming more of an issue in the health of professional athletes and their teams. Conservative and effective methods of care that help the athlete recover are important healthcare considerations.

Clinical Features: A 21-year-old white male professional hockey player was referred to this office due to multiple concussions and an inability to practice/play hockey due to unresolving post-concussion syndromes (over 9-months). He presented with headaches, photophobia, impaired memory, intermittent brain fog and mood swings, forgetfulness, fatigue, and depression.

Intervention/Outcome: The patient pO₂ values were 95% at rest and while on a stationary bicycle decreased to the upper 80s. SOT and cranial assessment revealed multiple cranial, craniofacial and TMJ related imbalances necessitating treatment at this office and co-treatment with a dentist specializing in TMJ care. The patient was treated for 10-visits (3-4 weeks) at which point he returned to regular play again. His oxygen saturation improved and with activity registered 98 to 99%. All of his original presenting symptoms were resolved. He scored a goal and two assists his first game back.

Conclusion: Further research into chiropractic care to facilitate recovery of sports related post-concussion syndromes might be warranted.

A chiropractic and dental perspective the three faces of forward head posture: Differential diagnosis is the key for optimal outcomes. Sacro Occipital Technique Research Conference: Nassau, Bahamas. 2019: 19-25

Blum CL

Objective: Ideally chiropractic seeks to optimize patient care collaboratively working within interdisciplinary relationships. One condition discussed in both dental and chiropractic arenas involves the ramifications of forward-head-posture (FHP) positioning. Determining causation is a crucial part of the differential diagnostic process since misdiagnosis can lead to poor patient outcomes.

Data Sources and Selection: A selective search of PubMed was performed to assess both chiropractic and dental perspectives of FHP.

Results: Chiropractic studies tended to focus on FHP as related to a spinal curve that needed to be “corrected,” secondary to poor posture/ergonomics. Dental studies tended to focus on FHP as being an adaptation secondary to airway compromise, related to craniomandibular joint disorders (CMD). Yet another group of studies determined that FHP conversely leads airway compromise.

Conclusion: Airway compromise and apneas have drastic long-term effects on patient mortality and morbidity. Chiropractic care needs to take into account possible adaptive FHP positioning, since “correcting” a spinal curve may aggravate airway compromise. Likewise, dentistry treating CMD may need to consider co-treatment with chiropractors since FHP may contribute to a patient’s airway compromise. Therefore, obstructive sleep related apneas related to FHP might require dental/chiropractic interdisciplinary care for optimal patient outcomes.

Intervention in gall bladder dysfunction through chiropractic adjustment and nutritional therapy: a case report. Sacro Occipital Technique Research Conference: Nassau, Bahamas. 2019: 26-30

Boro WJ

Objective: This report describes the clinical course, treatment and response of a 58-year-old female suffering 2-years from unremitting gall bladder dysfunction, seeking conservative chiropractic care.

Clinical Features: Patient had been receiving allopathic care for epigastric pain and esophageal reflux. She presented June-2016 with hopes of avoiding surgery. Initially her medications included (taken daily) Protonix and Zantac as well as various other medications for allergy, stress and pain reduction.

Intervention and Outcome: Treatments consisted of spinal manual manipulation Van-Rumpt organ adjustments, sacro-occipital technique's chiropractic manipulative reflex technique, and liver/gallbladder visceral manipulations. Following the first-treatment the patient noticed improvement for the first time in two-years. Initially nutritional supplementation focused on the liver, adrenals, and sooth stomach lining, ceasing supplementation by 2-3 months. After 45-days (8-treatments) a radionuclide hepatobiliary scan noted a gallbladder ejection fraction (11%) at 60 minutes (abnormally low). Due to her symptomatic relief and ability to significantly reduce medication intake she continued with chiropractic care. Approximately six-months later (22-treatments) a follow-up scan noted a normal ejection fraction (75%).

Conclusion: This case report demonstrates a chiropractic approach utilizing manual manipulation and somato-visceral reflex techniques that appeared to aid a patient suffering from gall bladder dysfunction.

Intervention in tachycardia through chiropractic adjustment, sacro occipital technique's chiropractic manipulative reflex technique: a case report. Sacro Occipital Technique Research Conference: Nassau, Bahamas. 2019: 31-34

Boro WJ

Objective: This report describes the clinical course, treatment and immediate response of 64-year-old male patient suffering from tachycardia and arrhythmia of 15-years' duration to the application of chiropractic adjustments and Sacro Occipital Technique's (SOT) Chiropractic Manipulative Reflex Technique (CMRT).

Clinical Features: A patient presented with history of atrial fibrillation and arrhythmia dating back to 2002. Cardiac ablation and catheterization of the left atrium performed in September 2014 helped to control his condition. However, the effectiveness of the prior interventions waned and patient reported ongoing increased pulse rates constant for months. Typical findings (21-random-pulse-readings) during the first week of May 2016 noted an average heart-rate of 134.6/minute.

Intervention and Outcome: Two office visits consisted of cervical adjustment, cranial manipulation, and CMRT related to cardiac viscerosomatic/somatovisceral reflex balancing with local vagal nerve stimulation. Heart-rate reduced within 5-minutes of the treatment. Patient-supplied data during the two-weeks post-treatment (41-random-pulse-readings) averaged heart-rates of 88.7/minute for the two-weeks following adjustment.

Conclusion: This case report demonstrates a chiropractic approach utilizing manual manipulation and somatovisceral reflex techniques that appeared to aid a patient suffering from tachycardia. Greater study is needed to determine what subset of patients might benefit from this procedure.

SOT cranial therapy for the treatment of pediatric torticollis: A chiropractic case report. Sacro Occipital Technique Research Conference: Nassau, Bahamas. 2019: 35-41

Hamel R & Boro WJ

Objective: A 4-month-old infant presented with torticollis and digestion upset, was treated with chiropractic interventions.

Clinical Features: The patient reported a 4-month history of right-head-tilt and torticollis, blood in her stool and latching difficulties possibly related to vacuum extraction and C-section birth. Birth interventions included an epidural, Pitocin, and 1-week labor with failure to descend.

Intervention/Outcome: Examination revealed a right-head-tilt, with a right-leg shortening, Achilles tendon tension, and an abnormal tonic labyrinth test. Hanging body test was abnormal revealing her body going into extension and head into right-rotation. Suck testing revealed hypersensitive gagging, dysfunctional tongue usage and restricted labile frenum. Right-SCM muscle tension, right-posterior occiput flattening with left-orbital compression and left-ear flare were noted. Tension was noted in the diaphragm and stomach area with apprehension to touch.

Treatment consisted of 3-SOT cranial treatment (over 3-weeks) incorporating SOT, CMRT, and craniofacial adjustments, along with probiotics. Gradual improvement was noted each session ending with the patient no longer having any head tilt, latch improvement was noted, no blood in stool, and all orthopedic testing normalized.

Conclusion: Greater study is needed to determine if a subset of infant torticollis and digestive issues might benefit from this approach.

Two sisters with plagiocephaly treated with one treated with a cranial band and the other with sacro occipital technique (SOT) cranial care: A comparative case report. Sacro Occipital Technique Research Conference: Nassau, Bahamas. 2019: 42-49

Nichols K & Blum CL

Objective: Plagiocephaly (non-synostotic) in otherwise normal children is a relatively frequent occurrence (3-61% with mean at 47%) with a common therapeutic option utilizing the cranial helmet (band). This study seeks to evaluate two-sisters with plagiocephaly (2-years-apart) and compare outcomes of one that received helmet care and the other only SOT cranial care (SCC).

Clinical Features: Both sisters were treated at this chiropractic clinic with the older sister first seen at age 4-years-old having used a cranial helmet for her plagiocephaly. The younger sister with a similar-type plagiocephaly was seen from age 3-6 months for SCC instead of a helmet intervention.

Intervention/Outcome: The older-sister (helmet) initially seen at age four was found to still have some cranial asymmetry, though not profound, however she had significant scoliosis and cervical spine imbalance which has persisted over approximately 3-years of care. The younger-sister (SCC) has good cranial symmetry, no scoliosis, cervical imbalance, or leg length functional inequality for the past 3-years.

Conclusion: Greater research is needed to help determine if there are instances when SCC may offer an alternative to cranial helmets and if helmets while aesthetically improving cranial appearance might have secondary adverse effects not occurring with SCC.

Immediate changes to lumbosacral dural regions upon bilateral alternating pressure to the parietooccipital (asterion) cranial region: A dissection study. Sacro Occipital Technique Research Conference: Nassau, Bahamas. 2019: 50-56

Pick MG

Introduction: Relationships between clinical application to the cranium and sacral region have been questioned and some studies suggest that palpation of these regions cannot be adequately reproduced, while others suggest otherwise. The purpose of this study was to assess whether an anatomical functional relationship could be demonstrated through a dissection study of the sacral region that was monitored pre and post pressures applied to the cranium.

Methods: An incision was performed upon a cadaver along the lower region of the fifth lumbar, exposing its lower spinous process and L5 S1 facets as well as carefully dissected to expose the dural sac. Lateral to medial hand pressure was applied bilaterally with cranial contacts just above the asterion with careful monitoring of the dural sac pre and post pressures.

Results: It appeared that with the application of cranial pressure, the sacral dural sac expanded in its circumference up to twice (100% increase in size) the diameter that it was before cranial pressure was applied or after the pressure was released.

Conclusion: This study represents the first attempt to assess if there might be a relationship between pressures to the cranium and a response in the lumbosacral meningeal region. While other studies have found pressures to the cranium had a demonstrable change in the dura, most were assessing structures local to the force application.

Scoppa J

Introduction: High blood pressure, or hypertension, is a common condition in which the long-term force of the blood against artery walls is high enough that it may eventually cause health problems, specifically cardiovascular disease. An 80-year-old male long-time patient presented with a new complaint of high blood pressure, which was unusual for him. At the time of his appointment his blood pressure was 167/93. The patient claimed that it hadn't gotten below 160/90 for the past couple of weeks.

Methods/Intervention: The patient was only treated with a cranial technique for high blood pressure. This cranial technique was performed bilaterally, by placing the doctor's thenar pad onto the mastoid with one hand, gentling guiding it posterior, while an intra oral contact is made with the thumb of the other hand, which hooked onto the pterygoid hamulus drawing it anterior, creating gentle separation for 2-3 minutes.

Results: Immediately following the cranial treatment the patient's blood pressure was 117/74, sustained itself the following day as well as through a six-month follow up.

Conclusion: This is only one case study and caution must be taken with anyone experiencing hypertension, however finding what subset of patients may be responsive to this intervention might limit the need for the chronic use of medication. Since hypertension has multiple comorbidities, many life threatening, it's important that hypertensive patients maintaining regular checkups with his/her primary care doctor.

**Conservative chiropractic management of 13-month old patient with facial palsy: A case report. Sacro Occipital Technique
Research Conference: Nassau, Bahamas. 2019: 64-68**

Tovar A & Blum CL

Introduction: In the general population facial palsy is a complex condition, which currently lacks a consensus on its optimal management in the healthcare arena. A 13-month-old female child presented to this clinic with facial palsy. Prior to being seen at this office she was being told by other physicians that the condition would resolve on its own; however, the parents were concerned because the condition was ongoing for nine months and appeared stable.

Methods/Intervention: At each office visit the child was assessed and her thoracic and cervical spine was adjusted with very gentle pressures. Treatment to the cranial and craniofacial bones focused on temporal bone balancing/decompression with cranial tension patterns released using Howat's Cranio Fascial technique.

Results: At the first follow-up visit the parent reported a big change from the initial visit with both of the child's eyes appearing more open. By the sixth visit (3 weeks) the parents no longer noticed a large crease on her mouth when feeding her with a bottle, as well as the child being more calm and relaxed throughout the day and at night.

Conclusion: While facial palsy in infants is usually self-limiting and recovery is generally expected, in this case it had sustained itself for nine months without any change. Both the physical changes in her appearance as well as clinical changes occurring in close association with the treatments rendered suggest a possible temporal relationship.