

SOT cranial therapy with an occlusal splint for the treatment of low back, leg and neuropathic pain: A chiropractic dental co-treatment case



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INTRODUCTION

Neuropathic pain appears in 6.9% to 10% of the general population, most related to back pain1. Patients presenting with low back related leg pain (LBLP), neuropathic pain co-occurs in 19% to 80% of patients. According to research, patients with LBLP and neuropathic pain have worse outcomes specifically, more pain intensity, depression, anxiety and lower health related quality of life than those without2. In a study of of 109 patients with surgically documented herniated lumbar discs, the short term results of lumbar discectomy were favorable. However, the long term results (12 years) were not very satisfying. More than one-third of patients had unsatisfactory results and more than one-forth complained of significant residual pain3.

ASSESSMENT

A 25 year old female patient reported a five-year history of low-back pain, hip pain, pulsing pain into her left-leg, decreased coordination and loss of feeling to her left-foot despite L5-S1 micro-discectomy use of medication, and a prior 2 year history of chiropractic manipulation. The pain was rated as a 5/10, and was unable to function without muscle relaxers and pain medications. She also experienced poor sleep, dizziness, headaches once-a-week rated as a 8/10, and TMJ crepitus.

METHODS

Examination revealed antalgic gait to the right, anterior head carriage, left-foot paresthesia, left-SIJ instability with palpatory pain and swelling, decreased left L5/S1 deep tendon reflex, decreased L2/3 and L5/S1 myotome strength, straight leg

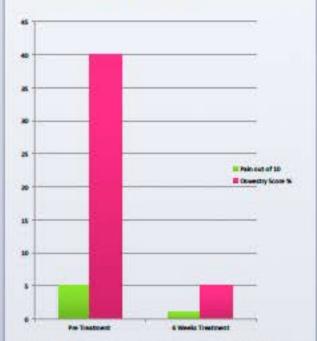


raise testing was positive with pain and radiation at 70 degrees left leg elevation, Fabere's testing was positive with palpatory pain and swelling in the left posterior sacroiliac joint and palpatory pain along L1-5 spinous processes and left quadratus lumborum. The cervical spine showed palpatory hypertonicity at C1-C4 R BL lamina and spinous processes, and C6-7 L lamina and spinous processes.

Dentally she had underdeveloped dental arches with anterior premature contact, poor TMJ translation, and evidence of clenching and bruxism.

METHODS

Craniodental assessment noted a left temporal bone restricted in extension with, a left inferior sphenoid, and sphenomaxillary distortion.



Pre and post treatment measuring pain level and Oswestry Disability score.

- Pre Treatment Oswestry score: 40%
 Moderate Disability
- Post Treatment Oswestry score: 5% Minimal Disability

Treatment consisted of ten sacro occipital technique (SOT) cranial dental appointments (over 6-weeks) incorporating SOT, neuro-emotional technique (NET), craniofacial adjustments and a lower occlusal dental splint.

Dental collaborative care consisted of a lower mandibular Gelb splint fabricated by dentist two weeks into care and modified immediately following SOT cranial techniques.

RESULTS

Following care the patient reported significant reduction in all symptoms and no longer had neuropathic pain symptoms. The low back pain was central, rated as a 1/10 and described as a mild tightness sensation every couple of weeks. The patient was able to stop all medications and return to hiking and horseback riding, which she had not been able to do for the past 5 years. Sleep and posture was improved and an improved Oswestry score was decreased to 5% minimal disability. The patient also reported a cessation of dizziness and headaches.

CONCLUSION

Greater study is needed to identify the subset of low back and neuropathic pain with concomitant TMD symptomatology that could benefit from this approach. Ideally in conditions where a patient presents with neuropathic pain and has failed prior conservative care options. The methods utilized in this case may offer another option, and a less invasive approach than surgery.

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