CHIROPRACTIC MANAGEMENT OF PATIENT WITH TRIGEMINAL NEURALGIA: A CASE REPORT

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ABSTRACT

Objective: To describe the successful chiropractic treatment of a patient with trigeminal neuralgia.

Clinical Features: A 25-year-old male had burning left-sided jaw and face pain present for 6 months. This was previously diagnosed by an MD as trigeminal neuralgia.

Intervention and Outcome: The conservative treatment consisted of a combination of cold laser therapy, manual therapy, and mobilization of the mandible and cervical spine. His symptoms improved following treatment and resolved after 3 months of care. They returned after an injury experienced during a boxing match and were again resolved with additional course of conservative care.

Conclusion: This case describes the treatment of a patient with trigeminal neuralgia using chiropractic manipulation and cold laser and manual therapy, which led to the resolution of symptoms and allowed the patient to return to normal activities. *(J Contemporary Chiropr 2022;5:82-84)*

Key Indexing Terms: Trigeminal Neuralgia; Boxing Injuries; Chiropractic

INTRODUCTION

Trigeminal neuralgia (TN) is a common neurological condition of the trigeminal nerve affecting 12.6-28.9/100,000 people per year. (1) There are 2 forms of TN, classic TN and secondary TN. Classic TN results solely from neurovascular contact and no other neurological conditions. (2) Secondary TN is a result of a secondary neurological condition. (2) TN has a higher prevalence in women than men, at a ratio of 3:1 and typically affects ages ranging from the mid-30s to the mid-60s. (3)

The clinical presentation of TN begins with a sudden onset of severe unilateral face pain, which is often described as sharp or electric in nature. It can last anywhere from a few seconds to over an hour. (4) Paroxysms are essential to the diagnosis of TN, with pain never extending behind the ear or below the mandible. (5) Other considerations must be made to include cervical nerves in these instances. The most common pathophysiology for classic TN is compression of the nerve by a blood vessel, resulting in demyelination. (6)

The diagnosis of trigeminal neuralgia is typically made from the patient history. (6) The differentials include post traumatic pain and trigeminal autonomic cephalgia. (6) The ICHD-3 created diagnostic criteria for TN. This criterion includes paroxysms along the trigeminal nerve, pain that is electric shock like, and harmless stimuli that result in pain. (7)

Imaging is not typically needed for the diagnosis of TN. However, up to 15% of people with TN have an associated condition such as a tumor. (8) In addition, there may be contact with the trigeminal nerve in 89% of symptomatic individuals and 35% of asymptomatic individuals on MRI. (9) Thus, MRI is often used as a diagnostic tool for trigeminal neuralgia due to its ability to identify nerve compression or tumors.

There are a number of different treatment options for TN. The most common treatment is pharmacological therapy. Carbamazepine is a commonly used drug often prescribed at a low dose to control the pain. (7) Another drug used to treat TN is Baclofen, which is a muscle relaxant. (7) If pharmacological therapy is ineffective, surgical treatments are often employed. These treatments may include microvascular decompression, ablative procedures, and radiosurgery. (7)

There is a paucity of literature regarding chiropractic treatment of TN (10); however, given the lack of consensus for definitive treatment options for TN, for those patients who do not wish to use pharmacological or surgical interventions, chiropractic care may be considered.

CASE REPORT

A 25-year-old male sought care for burning left-sided jaw pain he had been experiencing for the past 6 months. He stated that his medical doctor diagnosed him with trigeminal neuralgia. Following a thorough history and physical exam, his chiropractic physician initiated a

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course of conservative care. The chiropractic manipulative therapy (CMT) consisted of high-velocity, low-amplitude force directed to the mandible and cervical spine. The adjustment to the cervical spine included supine Diversified technique specifically to C1 and C3 on the left, while adjustment to the jaw adjusted used pisiform contact on the temporal-mandibular joint in a superior to inferior correction. Along with CMT, cold laser therapy and manual therapy were included in treatment. The Multi Radiance Medical MR4 Super Pulsed Laser was utilized on the acute inflammation setting in sweep mode. The frequency delivered from swept from 5-250 Hz. Cold laser therapy or low-level laser therapy (LLLT) uses a single-wavelength light source that results in the cell or tissue function to be altered. (11) The use of LLLT has clinically been shown to enhance myelin production and increase nerve function. (11)

The patient was treated conservatively for 3 months. The treatment consisted of chiropractic manipulations, manual therapy, and cold laser therapy. After 3 months of care, he experienced a full reduction in symptoms. Following a later injury incurred during a boxing match, he returned for treatment and the symptoms again resolved with an additional course of conservative care.

DISCUSSION

Trigeminal neuralgia has been shown to be 1 of the most painful neurological conditions. (7) TN is also known as tic douloureux because it is often accompanied by facial spasms. (7) The trigeminal nerve consists of 3 branches, V1, V2, and V3. The second and third branches are most affected. (7). Most cases are associated with compression of the nerve root, and between 80-90% of case, the compression is caused by an artery or vein. (7)

The diagnosis of trigeminal neuralgia is most often made based on history and patient symptoms. (7) The important questions regarding proper diagnosis include onset, relation to herpes zoster, and trauma. (6) Imaging can aid in identifying the cause of the symptoms. MRI can be useful in identifying multiple sclerosis, tumor, or nerve compression. Thus, MRI is emerging as a diagnostic tool for TN due to its ability to differentiate between neurovascular contact and compression of the nerve root. (2) Electrodiagnostic testing and reflex testing have also been shown to be effective at diagnosing TN, with a pooled sensitivity of 94% and a pooled specificity of 87%. (8,12)

There is a common symptomatology for trigeminal neuralgia. Most patients describe it as an electric shock-like pain. The pain often lasts for seconds and is lateralized to 1 side of the face (7). Trigger zones also accompany TN. The trigger zones occur along the nerve distribution. Touching these zones often elicits pain. (7)

The treatments for TN are not universally agreed upon and controversy still exists regarding treatment options. Pharmacological treatment seems to be the most widely accepted and utilized form of treatment; however, few randomized control trials exist, and many of the medications are associated with significant side effects. (8) The most common medications administered for TN are Carbamazepine and oxcarbazepine, which are sodium channel blockers. (2) Surgical intervention is used for those cases that are refractory to pharmacological intervention. Microvascular decompression and radiosurgical treatment are the 2 most common surgical interventions, with success rates of 86.9% and 71.1% respectively. (13)

CONCLUSION

Further research is needed to make any substantial claims regarding chiropractic as a treatment option for trigeminal neuralgia, in light of the fact that up to 63% percent of cases of TN go into remission that can last for years. (14) There is a small body of theoretical research indicating that neuron excitability can be influenced by chiropractic treatment. (15) However, the effects of these findings are not yet understood, and more research is still needed to understand the influence that chiropractic has on the nervous system.

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