



Chiropractic Management of Atypical Hard Palate Pain: A Case Report

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Abstract

Objective: To illustrate the exploratory trial of therapy administered to a complaint of severe hard palate pain presenting to an outpatient chiropractic clinic, and the clinical agenda associated with the exhibited case.

Clinical Features: A 76-year-old male presented with a 2-year history of hard palate pain centering just posteriorly to the left lateral incisor following an insidious onset. Upon examination, the pain was postulated to be of a neurologic nature; giving rise to a more nerve-related quality. The patient was previously seen by many healthcare providers regarding the complaint and subsequently presented to a chiropractic clinic for an impending trial of care. After developing a therapeutic framework based off the compiled evidence, a management plan was carried out for a total of 5 weeks.

Interventions

- Low Level Laser Therapy:** laser was applied externally to the aspects of the Trigeminal Nucleus, PP Ganglion, Stellate Ganglion, and intra-oral cavity - over the site of pain; with the intention to decrease neurologic involvement and inhibit sympathetic inclusion. [Fig. 1-4]
- Cervical Manipulative Therapy (CMT):** cervical segments of C1-C3 were given Grade V CMT with the intention to reduce any potential Trigeminal Neuralgia association with the presenting complaint.
- Spear Technique:** this technique was administered across the Sagittal Suture with the objective of achieving a sustained shear across the adjacent Parietal bones for manual cranial mobilization. [Fig. 5]
- Craniofacial Manual Therapies:** the utilization of a chiropractic Activator tool was applied over the areas of the Frontal Sinus and Maxillary Sinus in order to provide correlative motion across the surrounding connective and bony structures. [Fig. 6 and 7]
- Nutritional Considerations:** an at-home regimen of supplements including Magnesium, Vitamin A, and Vitamin B Complex were recommended to decrease any associated nerve involvement and to aid the integrity of the oral mucosa.

Quantitative Data

The Patient-Specific Functional Scale (PSFS) and Numeric Pain Rating Scale (NPRS) were utilized as outcome assessments.

- PSFS yielded a value of 8/10 initially and at reassessment was 6/10, a clinically important difference of 25%.
- NPRS yielded a value of 8/10 initially, and at reassessment was 6/10, a clinically important difference of 25%.

The patient demonstrated a mild reduction in pain, chronicity, and continuous involvement regarding the presenting oral complaint following the 5-week trial of chiropractic interventions.

The elicited diagnosis remained appropriate throughout the course of care and applicable changes were made regarding encounter frequency within the management plan.

Diagnostic Considerations

The presenting complaint culminated a differential diagnosis list of the following:

- Burning Mouth Syndrome**
- Neuropathy:** Trigeminal n., Glossopharyngeal n., and/or Palatine n.
- Herpetic Infection**

Highest Level Diagnosis: Chronic, continuous, palatine neuralgia regarding the teeth and central portion of the hard palate in an otherwise healthy 76-year-old male.

The clinical suspicion of Palatine nerve involvement stems from the nerve-related symptomatology through the branches of the Trigeminal nerve and Pterygopalatine (PP) ganglion, which innervate the hard palate across the intra-oral maxilla and palatine bones. [Fig. 1 and 2]



Figure 4: MR4 Laser with the oral probe attachment for intra-oral site of pain



Figure 5: Spear Technique and the sustained shearing vectors at the Sagittal Suture

Qualitative Data

Following the 5-week course of intervention, formulated goals in accordance with the given outcome assessments and the Minimal Clinically Important Difference (MCID) were met; however patient satisfaction was not reached. The therapeutic benefit was not significant enough towards patient satisfaction and therapy was ultimately concluded.

Conclusion

The 5-week trial of care and the therapies utilized for this case demonstrated a 25% reduction in the patient's complaint. Ultimately, this lends to the plausibility of these interventions being therapeutically beneficial for such a unique presentation. However, further analysis and conducted research is warranted.

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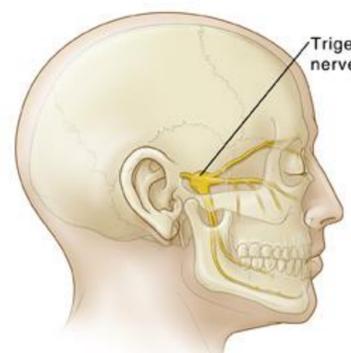


Figure 1: Distribution of the Trigeminal n.

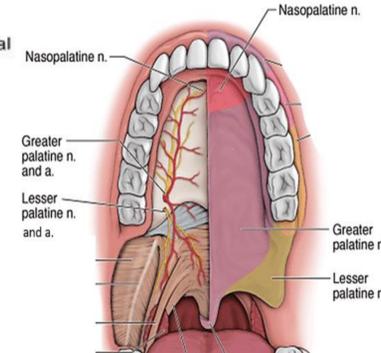


Figure 2: Innervation of the Palatine n.

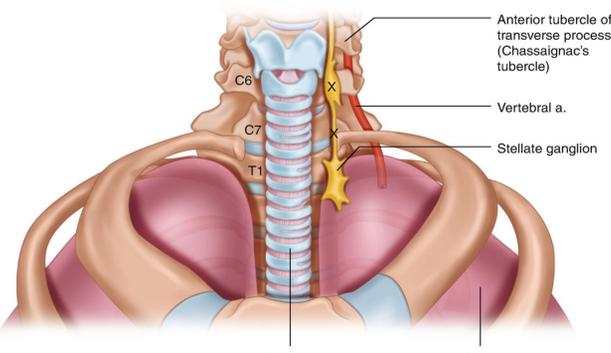


Figure 3: Distribution of the Stellate Ganglion via the Sympathetic Chain



Figure 6: Activator utilization across the Zygoma and Maxillary Sinus



Figure 7: Activator utilization across the Frontal Sinus