

Reduction of Headache Frequency in Adult Women when Addressing the Dural Fascial Kinetic Chain (DFKC) a retrospective case series report

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Abstract

Introduction: Fascia condenses in functional lines throughout the body to promote better kinetics and to cover and connect different body structures. Its purpose in the body has historically been dismissed and discarded. There is currently little research on the connection between fascial lines in the lower extremity to the dural sleeve, and its implications in clinical care. The purpose of this research is to examine how a treatment protocol focused on decreasing posterior lower line fascial tension and dural tension improves the symptomatology of patients suffering from headaches.

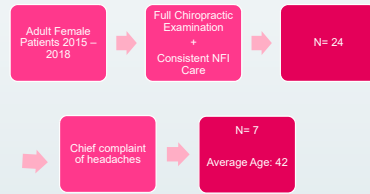
Methods: We performed retrospective file review (2015-2018) of female adults presenting for care with headaches. Inclusion criteria for review were: (1) the patient underwent a full chiropractic examination prior to care; (2) the patient received consistent care consisting of spinal adjustments and fascial release within a NeuroFascial Integration framework.

Results: We found 7 patients meeting inclusion criteria. Their average age was 42 years. All seven experienced decreased frequency of their headache symptoms. Dural tension and lower posterior fascial line tension objectively improved using the orthopedic measures tested.

Conclusion: Our findings provide supporting evidence that spinal adjustments and fascial release may improve dural tension-related headaches. We support future research on the non-invasive ways to address tension in the Dural Fascial Kinetic Chain that may contribute to patients suffering from headaches.

Methodology

A retrospective file review (2015-2018) was performed in a private NeuroFascial Integration clinic in Portland, Oregon to review female adults presenting for care with a chief complaint of headaches. Files were included based on the following criteria: (1) the patient underwent a full chiropractic examination prior to care; (2) the patient received consistent care that included spinal adjustments and fascial release within a NeuroFascial Integration framework. There were 24 female adults that fit the inclusion criteria. Of the 24 patients, 7 patients were found to have started care with a chief complaint of headaches. The age range of the subject group was 19-70 with average age of 42. All patients reported headache as one of their top three chief complaints prior to their initial evaluation.



History and Subjective Rating of Headaches

Patients were asked to provide information about the frequency, intensity, and duration of their headaches on their intake history as well as on each of their review histories. On their review histories, they were also asked to comment on how their headaches have changed since starting care.

Quality of Life

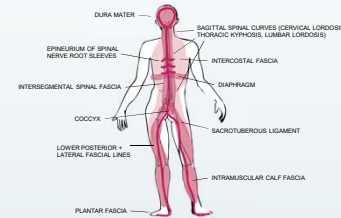
Quality of life questions were asked on each patient's intake history and asked again at each review history. Questions were answered on a scale of 0-10. Patients were asked to use this scale to rate quality of life measures including energy level, ease of movement, ease of respiration, overall wellness, quality of sleep. Responses were added to give each patient a quality of life score with a maximum score of 190.

Exam Procedures

Each patient received an examination prior to starting care that included orthopedic, neurologic and range of motion testing. Tests that are relevant to the measures of dural tension and lower posterior fascial line tension included active and passive straight leg raise, bilateral leg raise, and cervical range of motion, particularly cervical flexion.

Description of Care

NeuroFascial Integration is a system of bodywork grounded in traditional chiropractic. The therapy includes spinal, cranial, dural, and fascial considerations. Care is individualized to each patient; however, a general protocol of addressing fascial adhesions starting with the lower posterior line was used for all patients. Level and technique used for spinal adjustments varied based on what was individually required in concert with the clinical judgment of the provider and patient preference. Adjustments addressed components of the Dural Fascial Kinetic Chain, most often at the coccyx, upper-to-mid thoracic spine, cervico-thoracic junction, and upper cervical spine.

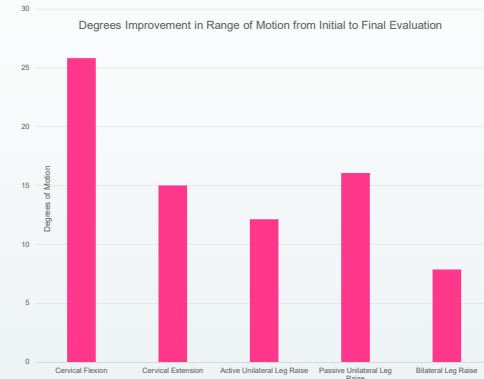


Patients began care at a higher frequency, receiving treatment 3 times a week for 4 weeks in the first phase of care. Re-evaluations were generally performed at each 12th visit to assess for objective measures of change and to re-evaluate the course of care. After the first re-evaluation, most patients began to receive care at a lower frequency. Patients received care for varied lengths of time when the data was collected with the longest number of visits at 94 and the shortest number of visits being 12 visits with an average of 58.5 visits at the time data was analyzed (although results were commonly achieved in significantly less time).

Results

All patients reported a decreased frequency in headaches with 4 out of 7 patients reporting complete resolution of their headaches. Patients who did not see full resolution of their headaches reported a significant improvement in frequency as well as a higher awareness of things that trigger the onset of a headache and decreased intensity of their headache symptoms.

Reported Hours of Headache per week



Overall, patients showed improved objective measures of cervical range of motion, unilateral leg raise (passive and active), and bilateral leg raise. Quality of Life measures also improved an average of 36.16 points

Conclusion

Our findings provide supporting evidence that spinal adjustments and fascial release performed in the NeuroFascial Integration framework, and specifically targeting the Dural Fascial Kinetic Chain, correlates with a reduction in frequency of chronic headaches. This association is likely related to measured reduction of tension throughout the Dural Fascial Kinetic Chain following therapeutic intervention. This study invites further research into the correlation of dural tension, fascial tension, and headache. Research into these functional relationships of the Dural Fascial Kinetic Chain and its implications for headaches may provide valuable insight when considering therapeutic options for patients suffering with this common symptom.

References

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Introduction

The objective of this retrospective case series report was to examine the changes in headache frequency of adult women who underwent clinical care using the NeuroFascial Integration technique. The hypothesis was that adult women who received NeuroFascial Integration (NFI) care would have less dural tension that would decrease the frequency of their headaches. NFI specifically addresses fascial adhesions along the posterior lateral fascial line. By combining fascial release with spinal adjustments to areas of the spine where the sagittal curves are reduced from normal, NFI decreases the amount of tension in the dural fascial kinetic chain.

The spinal dura mater is loosely attached to the spinal channel, except for its cranial and caudal fixations, enabling movement of the dura within the canal (1). Most research on the connection of the dura to the fascial system thus far has been done on the connection between the dura mater and fascia or musculature in the cervical spine. There is strong evidence for connection of the dura mater to the rectus capitis posterior minor, major and obliquus capitis inferior muscles (2).

However, little research has been done on the connection of the lower fascial system to the dura mater. Studies that have been done on this connection have measured the displacement of the fascia in the lower leg during cervical flexion, though the mechanism has not been fully understood (3). The purpose of this study was to examine the clinical implications (particularly in headaches) when addressing the Dural Fascial Kinetic Chain (4). We are proposing the introduction of this functional structure, based upon established anatomical connections between the dura mater, sacrotuberous ligament, lower posterior and lateral fascial lines, plantar fascia, and other related fascial structures.