



Physical Therapy management of a patient with Hypermobile type Ehlers-Danlos Syndrome for treatment of Cervicogenic Headaches: A Case Report

Cody A Leeworthy SPT, Jeffrey A Rot PT, DHSc, OCS, MTC, FAAOMPT

BACKGROUND & PURPOSE

Ehlers-Danlos Syndrome (EDS) is a group of diseases which is appears to affect 1 in 5,000 people worldwide by creating fragility in soft connect tissue that may have widespread manifestations in skin, ligaments, joints, blood vessels, and internal organs.^{1,2} Hypermobile EDS (hEDS) is thought to be the most common type of EDS and typically presents with systemic joint and skin hypermobility as well as tissue fragility.²

Cervicogenic headaches (CGH) are a chronic type of headache that may demonstrate a wide spectrum of symptoms, but most commonly, presents with pain that originates in the neck and occipital regions and projects to the oculofrontotemporal region.³

According to Jull⁴, the Cranio-Cervical Flexion Test (CCFT) is used to measure the muscle endurance and strength of the deep neck flexors, specifically the longus colli and longus capitus. There has been an absence of research performed regarding treatment of hypermobility disorders, mainly hEDS, with the use of the CCFT.

The purpose of this case report was to demonstrate the management of a patient diagnosed with hEDS for treatment of Cervicogenic headaches with the use of the CCFT protocol.

CASE DESCRIPTION

Patient Background

- 15-years-old
- Ehlers-Danlos Hypermobile type

Patient Presentation

- Chronic headaches
- Joint Pain
- Poor Posture

Activity Limitations

- Long duration sitting
- School
- Karate

METHODS



CCFT Set-up position

RESULTS

Outcome Measure		Initial Exam	Final Exam
Active Range of Motion (Degrees)	Cervical Forward Bend	90 degrees	85 degrees
	Cervical Backward Bend	80 degrees	76 degrees
	Cervical Side Bend Right/Left	30 degrees/32 degrees	30 degrees/32 degrees
Muscle Strength	Low Trapezius	3+/5	4+/5
	Cranio-Cervical Flexion Test (CCFT)	Test terminated at 22 mmHg due to compensations	Test completed at 30 mmHg with no compensations
Numeric Pain Scale Rating	At Worst (During Headache)	8/10	4/10
	At Best (During Resting Period)	3/10	0/10
Functional Self Report	Neck Disability Index (NDI) (%)	25/45 or 55.6%	15/45 or 33.3%
	Frequency of Headaches	4	1

DISCUSSION

It is the authors opinion that the Cervicogenic headaches were the result of the Ehlers-Danlos Syndrome. The CCFT is a common evidence based examination and intervention utilized by physical therapists to effectively treat CGH.

By utilizing the CCFT protocol, the patient was able to decrease the frequency and intensity of Cervicogenic headaches as well as decrease the Neck Disability Index scores from 25/45 to 15/45 thus allowing the patient to be able to complete her school work without pain.



Poor Posture during school and videogames

CLINICAL RELEVANCE

Upwards of 30-40% of patients diagnosed with Ehlers-Danlos syndrome experience neck pain and headaches.⁵ Ehlers-Danlos Syndrome has not been thoroughly researched for specific physical therapy treatment of Cervicogenic headaches. This case report demonstrated positive outcomes with the use of the CCFT protocol in treating patients with hEDS who are experiencing chronic Cervicogenic headaches.

EXERCISES



REFERENCES

