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Frequency Specific Microcurrent in the Treatment of Hypermobility Spectrum Disorders: A Case Report

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ABSTRACT

This case follows the use of Frequency Specific Microcurrent (FSM) to treat a 33-year-old woman with hypermobile joints, chronic neck and back pain, and chronic anxiety. FSM treatment involved using frequencies resurrected from the 1920's applied with a modern microcurrent device. The current and frequencies were applied from the neck to the feet. Photos before and after treatment illustrated a strengthening of connective tissue in the wrist joints as evidenced by decreased wrist flexion. FSM treatments included frequencies to correct for "torn and broken" connective tissue. In addition to the observable decrease in flexibility immediately post FSM treatments, the patient reported that she felt "sturdier" and 'tight in a good way". At subsequent visits, the patient reported that her neck pain, back pain and generalized anxiety were reduced. Treatment effects lasted from 1-6 weeks, with more lasting effects demonstrated with cumulative treatments, lysine supplementation, and dietary modifications to reduce dietary oxalates as well as exposure to chemicals and pesticides found in food. This study suggests that FSM is potentially a useful therapy to effectively treat hypermobility spectrum disorder and should be studied in a larger sample.

Keywords: Ehlers-Danlos, hypermobility spectrum disorders, HSD, frequency specific microcurrent, connective tissue.

INTRODUCTION

There are a range of connective tissue disorders classified as Ehler-Danlos Syndrome (EDS) disorders. The most common variant of EDS disorders is hypermobility spectrum disorders (HSD). With HSD no obvious tissue deformity is visually present, but upon examination through the Beighton Score analysis, tissue hypermobility is present. (1) People at the HSD end of the spectrum often have issues related to joint instability such as chronic pain and soft tissues injuries that are not as often found in people without evidence of hypermobility. Anxiety is also often seen with hypermobility disorders. One contributing factor to hypermobility seems to be caused by a collagen production defect resulting in weak connective tissue that is damaged easily. (2,3) This paper is going to relate the case of a patient with chronic pain and anxiety whose symptoms decreased dramatically as a result of treatment with Frequency Specific Microcurrent (FSM). These results proved to be more long lasting with the intake of lysine to support collagen production and the avoidance of glyphosate and other chemicals in food.

PATIENT INFORMATION

A 31-year-old non-smoking female presented for chiropractic treatment for chronic neck, upper trap, and back pain in April of 2023. With a history of anxiety since childhood, this had

worsened during the Covid pandemic and grown to include panic attacks as well. Additional symptoms included abdominal bloating, fatigue, needing to sleep 10 hours per night to feel rested, and hair loss. TSH testing for thyroid function was normal. Medications included Flonase and Cetirizine for allergies, Citalopram and Lorazepam for anxiety, and Estarylla for birth control. At her initial appointment, she was in an acute low back exacerbation that came on after sitting with her leg up in a chair, then leaning forward which resulted in a back spasm. At this initial appointment, she rated her low back pain at a 7/10 and said that it got worse throughout the day. Activity made the back pain worse. The pain was in the center of her lower back and down into her buttocks. The pain was very bad at first and she went to urgent care and was prescribed a muscle relaxer. She denied any radicular symptoms. She did some PT exercises. She had a history of tight gluteus muscles. The patient is an elementary school teacher and is often bending over or sitting on the floor. She had an MVA 9 years ago and received chiropractic manipulative therapy (CMT) as treatment. She had right shoulder surgery for a labrum tear 12 years ago. Her shoulder feels good now, but she gets nervous with throwing because her shoulder gets sore with prolonged activity.

CASE PRESENTATION

Initial treatment consisted of Chiropractic Manipulative Therapy (CMT) and Frequency Specific Microcurrent (FSM). FSM developed in 1997. The frequencies used were found in 1946 on a list that came with a device made in 1922. The list contained a frequency listed as a number followed by a word describing either a tissue, or a condition that was thought of as interfering with the healthy and proper function of that tissue. The frequencies are applied using a modern battery operated microcurrent device authorized by the FDA in the category of TENS devices. Microcurrent has been used in the category of TENS since 1971.

Frequencies from the list are thought to use biological resonance to neutralize the effects of specific conditions in a target tissue. Frequencies on a second channel are thought of as resonating with the electromagnetic structure of the target tissue to change cell signaling and thereby change cell function and perhaps structure. Frequencies targeting conditions and tissues are referred to as Channel A and Channel B frequencies respectively.

Test	Result	Point
Right pinky extension greater than 90 degrees	Positive	1
Left pinky extension greater than 90 degrees	Positive	1
Right wrist flexion, thumb touching forearm	Positive	1
Left wrist flexion, thumb touching forearm	Positive	1
Right elbow hyperextension beyond 10 degrees	Negative	0
Left elbow hyperextension beyond 10 degrees	Negative	0
Right knee hyperextension beyond 10 degrees	Negative	0
Left knee hyperextension beyond 10 degrees	Negative	0
Lumbar flexion with palms flat on floor	Positive	1
	Total Score	5/9

Figure 1: Beighton Scale Results 10/12/2023 before initial FSM treatment

FSM frequencies originally used were ones to decrease inflammation, scar tissue, and mineral deposits in tissue. CMT and FSM treatments were performed 2 times per week for 4 weeks, then every 2 weeks. Chiropractic adjustments did not hold well. The patient's pain would be

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diminished by the end of each treatment, and stay diminished for several days, but then the pain would return. During this time, various activities such as bending sideways in a chair to pick up paper off the floor, or simply after working a full day bending and stooping, would cause a muscle spasm and pain in her neck or back. At an appointment on October 12, 2023, the patient mentioned that the shoulder surgeon who repaired her labrum tear had said that she was hypermobile. Also, at this time, she mentioned that she had a history of lower back ribs "popping out as a child" and that her ribs continued to do that up to the present time. Using the Beighton Scale to measure hypermobility, she scored 5/9 which is a positive score. (4) Wrist flexion in general was markedly increased over the norm. At this point, I decided to focus FSM treatment on repairing and stabilizing connective tissue.

FSM Treatment for Hypermobility

The first FSM treatment specifically to address hypermobility was on October 24, 2023. The treatment was performed at the beginning of the visit before any CMT.

Figure 2: Photos of FSM set-up neck to feet

Wet towels were placed around the neck and feet. The treatment time was one hour. The treatment protocols used were the Ehlers-Danlos and Concussion plus Vagus protocols included in the FSM mode bank that all trained FSM practitioners have access to. The patient felt that her body was "tighter all over in a good way" post FSM. Wrist flexion was reduced post FSM. The CMT treatment that followed to her cervical spine felt different to her as well. She described it as "firmer and crunchier", which I interpret as meaning there was less inflammation in the tissues. At the next visit 17 days later, the patient said that she had felt tighter all over after the previous visit, but in a good way, and that she had had fewer episodes of stress and anxiety. The effects lasted about a week. This is in accordance with standard FSM training which states that running protocols for hypermobility will improve symptoms for about 1 week. The mention of decreased stress and anxiety following the treatment can be explained in a few possible ways: Tearing of the connective tissue is an injury and injuries in general will function as trauma and decrease Vagus Nerve function resulting in increased stress and anxiety. (5) Additionally, there is abundant fascia and connective tissue in the body all along the Vagus Nerve. As the connective tissue tears, there is pulling and stress on the Vagus Nerve itself, resulting in a decrease in Vagal Tone and a subsequent increase in stress and anxiety. (6)

Subsequent to this initial FSM treatment specifically for hypermobility, I suggested to the patient that she avoid chemicals and pesticides in her foods, specifically glyphosate, because I was aware of links between glyphosate and connective tissue instability. (7)

The next FSM hypermobility treatment was one month after the first. Prior to this appointment, she began transitioning to more organic food. The second treatment included a protocol to clear toxins from the body. The results lasted almost 2 weeks this time. She began monthly FSM treatments for hypermobility, with CMT every 2 weeks. An additional recommendation was to avoid high oxalate foods because oxalates have been implicated in various types of tissue damage, including joints. (8)

Over the next several months, the same 2 base FSM treatment protocols were performed on a monthly basis: Ehlers-Danlos and Remove Toxins. Concussion plus Vagus was not used at each subsequent treatment because of overlap with many frequency pairs found in the Ehlers-Danlos protocol. The Ehlers-Danlos protocol focuses on repairing torn and broken connective tissue, decreasing inflammation in the spinal cord, medulla and small intestine, and increasing vitality of the Vagus Nerve and connective tissue.

	Before	After
4/16/24	 0 cm	 2 cm
8/6/24	 2 cm	 4.75 cm

Figure 3: Wrist Flexion before and after FSM treatments with distance measured between thumb and forearm

Remove Toxins focuses on removing glyphosate and other organic toxins from body tissues. It also decreases inflammation in the small intestine and supports Vagus Nerve function. After each treatment, the patient felt stronger and her wrist hypermobility decreased. In January of 2024, blood work showed a high CRP. At an appointment on 4/16/24, her neck felt boggy and swollen to me with palpation. She rated the pain at a 6.5/10. FSM to reduce histamine in soft

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tissues was added at this appointment. Post FSM, she rated her neck pain at a 3.5/10. She rated her overall decrease in inflammation from a 7 to 3 after FSM. After this treatment, she began taking L-Lysine 500mg BID to support connective tissue formation.

At her chiropractic appointment 2 weeks later on 4/30/24, she reported that she was feeling 90% of the previous treatment effects which was better than usual. This may be ascribed to either the addition of L-Lysine and or running frequencies to reduce histamine in her soft tissue at the previous appointment. She rated her inflammation at this appointment 2 weeks out from the previous FSM treatment at 3.5 to 4/10. A recent CRP test was now normal, 4 months after a high CRP test result. Over the next few months, the patient reported to me that her symptoms tended to worsen with increased heat. Hot weather made her feel sore and swollen. I began adding a program to stabilize mast cells at the 8/6/24 appointment. 2 weeks after this appointment she was feeling very good and was swimming to increase strength.

CONCLUSION

Over the course of 11 months, FSM frequencies to repair connective tissue, improve Vagal Tone, clear toxins, and stabilize mast cells consistently decreased pain and hypermobility in this patient immediately by the end of each treatment. Anxiety was reduced between appointments. Additionally, taking oral supplementation of lysine, avoiding chemicals in food by eating organic, and decreasing oxalate content in food all helped to maintain the FSM effects. Two additional considerations regarding the genesis of the hypermobility to explore are: first, the presence of mold in the patient's workplace which could be creating mast cell activation (9); and second, a deficiency of Manganese, necessary for connective tissue formation, which has been shown to be depleted by glyphosate consumption. (7) Based on the results of this case study, further research is indicated for the use of FSM to manage symptoms of hypermobility.

The author meets the uniform requirements of the Journal and Research criteria for authorship. The author denies any conflict of interest. Signed consent was obtained from the patient to be the subject of a case study submission.

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Channel A Condition		Channel B Tissue		
124	Repair	77	Connective Tissue	60 min
40	Acute inflammation	10	Spinal Cord	20 min
40	Acute inflammation	94	Medulla	4 min
94	Concussion, nerve trauma	109	Vagus Nerve	4 min
81	Increase secretions	109	Vagus Nerve	4 min
49	Increase vitality	109	Vagus Nerve	4 min
81	Increase secretions	84	Hindbrain	2 min
81	Increase secretions	142	Fascia	4 min
49	Increase vitality	77	Connective Tissues	2 min
40	Acute inflammation	22	Small Intestine	4 min

Figure 4: Channel A and B Frequencies Used Ehlers-Danlos Protocol

Channel A Condition		Channel B Tissue		
6.8		38	Constitution	1 min
979	Glyphosate	22	Small intestine	2 min
979	Glyphosate	35	Liver	2 min
979	Glyphosate	85	Colon	2 min
979	Glyphosate	109	Vagus Nerve	2 min
124	Torn and broken	109	Vagus Nerve	5 min
94	Concussion	109	Vagus Nerve	2 min
57,900,920	Organic toxins	109	Vagus Nerve	2 min each
81	Increase secretions	109	Vagus Nerve	2 min
57,900,920	Organic toxins	22	Small intestine	2 min each
57,900,920	Organic toxins	85	Colon	2 min each
30	Irritation	22	Small intestine	2 min
40	Acute inflammation	22	Small intestine	4 min
284	Chronic inflammation	22	Small intestine	2 min
124	Torn and broken	22	Small intestine	10 min

Figure 5: Channel A and B Frequencies Used Remove Toxins

Channel A Condition	Channel B Tissue

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9	Histamine	103	Blood	4 min
9	Histamine	116	Immune System	4 min
40	Acute inflammation	103	Blood	4 min
40	Acute inflammation	116	Immune system	4 min
94	Concussion, nerve trauma	200	Solar nerve plexus	2 min
970	Emotional	200	Solar nerve plexus	2 min
94	Concussion, nerve trauma	94	Medulla	2 min
40	Acute inflammation	94	Medulla	4 min
94	Concussion, nerve trauma	89	Midbrain	2 min
40	Acute inflammation	89	Midbrain	4 min
94	Concussion, nerve trauma	109	Vagus Nerve	4 min
81	Increase secretions	109	Vagus Nerve	4 min
49	Increase vitality	109	Vagus Nerve	4 min
294	Trauma	22	Small intestine	2 min
40	Acute inflammation	22	Small intestine	4 min
124	Torn and broken	22	Small intestine	8 min
49	Increase vitality	22	Small intestine	2 min
40	Acute inflammation	116	Immune system	4 min
9	Histamine	103	Blood	4 min

Figure 6: Channel A and B Frequencies Used Mast Cell Activation Syndrome