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As a biomedicine student from China, Tong Ning moved to the United States in 2010, bringing a depth of knowledge and a desire to improve community health. Dr. Ning is now an alumna of Bastyr University, where she received her Doctorate in Acupuncture (DAc). She also holds a Diplome of Acupuncture (Dipl. Ac) from the National Certification Commission for Acupuncture and Oriental Medicine (NCCAOM). A licensed acupuncturist (LAc) in Washington state, Dr. Ning has been dedicated to serving the Bellevue community since 2017. Her expertise includes pain management, gynecology, post-stroke care, and facial nerve enhancement. She is committed to acupuncture's art and science, offering a compassionate approach that makes her a trusted holistic healthcare provider.

Acupuncture Following Recovery From Guillain-Barré Syndrome, A Case Report

By Tong Ning, DAc, LAc

Abstract

Guillain-Barré syndrome (GBS) is a rare neurological disorder in which the body's immune system mistakenly attacks part of the peripheral nervous system. Weakness and tingling in the hands and feet are usually the first symptoms; these sensations can quickly spread and paralyze the whole body or part of it. This case report describes the effectiveness of TCM-style acupuncture treatment for a 54-year-old female recovering from Guillain-Barré syndrome. The patient received 12 weekly treatments and reported reduced pain and improved physical function. This study provides evidence for the potential clinical utility of acupuncture treatment for patients with GBS.

Keywords: acupuncture, Guillain-Barré, case report, autoimmune, neuropathy

Introduction

In this case report, a 54-year-old female who had largely recovered from Guillain-Barré syndrome (GBS) six months previously sought acupuncture to alleviate lingering symptoms of weakness, numbness, a tingling sensation on the right side of her leg, and Bell's palsy on the right side of her face. This case report aims to inform other acupuncturists that acupuncture may be effective for continued healing from GBS.

Guillain-Barré syndrome (gee-YAH-buh-RAY) is an autoimmune-mediated peripheral neuropathy; the body's own immune system attacks the myelin sheaths around nerves (see Figure 1.). The most common form of the disease presents as progressive motor weakness, usually beginning in the legs and advancing proximally. Symptoms typically peak within four weeks, then plateau before resolving. More than half of patients experience severe pain,

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and about two-thirds have autonomic symptoms, such as cardiac arrhythmias, blood pressure instability, or urinary retention. Advanced symptoms may include compromised respiration and other vital functions. All age groups can be affected; the male population is statistically more affected than the female. Dickson et al. (2013) report that the estimated annual incidence in the United States is 1.65 to 1.79 per 100,000 persons. Neurologic problems persist in up to 20% of patients with the disease, and ~50% of these patients are severely disabled; moreover, about 3% of patients with Guillain-Barré (GBS) syndrome die.

The cause of Guillain-Barré syndrome is unknown; about two-thirds of the patients had a prior respiratory or digestive tract infection, particularly from *C. jejuni*, or other bacteria or viruses. The remaining third of cases are either idiopathic or associated with pregnancy, surgery, vaccination, or autoimmune diseases such as systemic lupus erythematosus (Yu et al., 2023; Zheng et al., 2023). No statistical significance on cause and effect can be concluded between patients' vaccine history and GBS. Recent research suggests a relationship between the severity of GBS and a prior COVID-19 infection (Trujillo Gittermann et al., 2020).

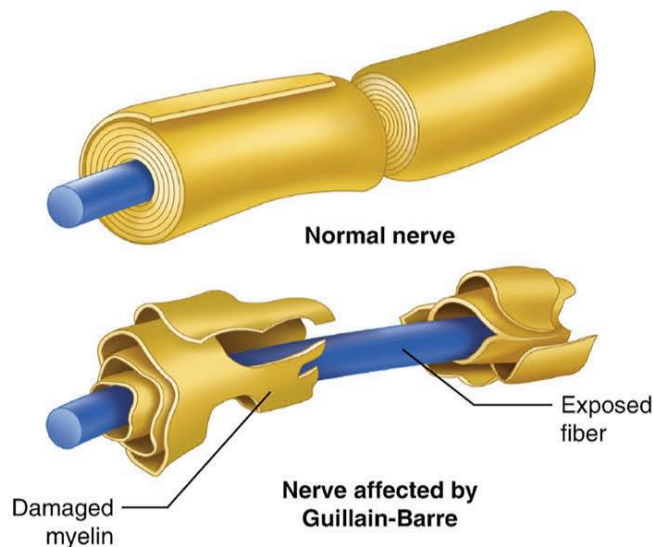


Figure 1. (Eastlack et al., 2020). Patient with Guillain Barre Syndrome (GBS).

Case Presentation and Diagnosis

The patient, a 54-year-old female, was acupuncture-naïve. When she initially came to the office, she was six months post-GBS diagnosis and had largely recovered. Her primary chief complaint was weakness, numbness, and tingling sensation on the lateral aspect of her right leg. Her secondary complaint was Bell's palsy on the right side of the face, which also began with GBS.

This patient had no significant medical or family history related to GBS. In early October 2021, she got her annual flu shot; two weeks later, she received her third dose of the COVID-19 vaccine. Two weeks after that, she became ill, possibly catching a cold or viral infection from her daughter, who was sick at the time. Both the patient and her daughter's COVID tests were negative.

The illness was so severe the patient went to urgent care. Her condition steadily declined. Her blood test (CBC) was normal; only her sodium levels were slightly low. Her pain increased so much that she was not able to walk. She was admitted to the hospital, and after a week, she was diagnosed with Guillain-Barré syndrome. In the hospital for two and a half weeks, she was medicated for pain. She received occupational therapy, physical therapy, and massage treatments during recovery.

As summarized by Yu et al. (2023), possible pathogenic mechanisms that lead to GBS could be assessed based on the patient's demographic characteristics, clinical and neurophysiological aspects of cases with GBS, and vaccination history. According to their clinical presentations, three diagnostic types of Guillain-Barré syndrome are recognized.

The first type is acute inflammatory demyelinating polyradiculoneuropathy (AIDP), the most common form in North America and Europe. Signs and symptoms begin in the lower part of the body and spread upwards. The second type is Miller-Fisher syndrome (MFS), which is less common in the U.S. but more common in Asia and in which the paralysis starts in the eyes. The third type is acute motor axonal neuropathy (AMAN) and acute motor-sensory axonal neuropathy (AMSAN), less common in the U.S. but more frequent in China, Japan, and Mexico. This patient's demographic characteristics and clinical manifestations suggested the first type of biomedically diagnosed Guillain-Barré syndrome primarily, with mixed symptoms from the first and second types.

In Traditional Chinese Medicine (TCM), Guillain-Barré syndrome is diagnosed as wei syndrome. In ancient Chinese medicine, wei syndrome originally meant limb motor impairment due to muscular weakness or atrophy. Wei syndrome is characterized by muscular flaccidity, weakness, or atrophy of the extremities with motor impairment or even paralysis at a later stage. It describes many diseases, such as muscular atrophy, muscular dystrophies, myotonic syndromes, periodic paralysis, myasthenia gravis, endocrine myopathies, hysterical paralysis, and related conditions. Four TCM pattern differentiations of wei syndrome include Lung-heat type, damp-heat type, Spleen and Stomach deficiency type, and Kidney and Liver deficiency type.

In TCM, a patient's tongue and pulse are essential diagnostic tools to evaluate their overall health. Initially, the patient's tongue showed a pale color with a thin white coating; it also appeared slightly dry and cracked. The patient's pulse was weak and thready. The patient's TCM diagnosis was a combination of both Spleen and Stomach qi deficiency types, plus Kidney and Liver yin deficiency types.

Treatment

Normally, GBS patients are hospitalized for multidisciplinary supportive care and disease-modifying therapy (Dickson et al., 2013). Supportive therapy includes controlling pain with nonsteroidal anti-inflammatory drugs, carbamazepine, or gabapentin; monitoring for respiratory and autonomic complications; and preventing venous thrombosis, skin breakdown, and deconditioning. Other therapies, including plasma exchange, immunoglobulin therapy, and corticosteroids, have not demonstrated benefit. Among adults recovering, about 80% can walk independently six months after diagnosis, 60% fully recover motor strength one year after diagnosis, and ~5%-10% have significantly delayed and incomplete recovery.

The acupuncturist in this case had been in a private practice for over six years, specializing in pain management and women's health. The patient started the acupuncture treatment in the early summer of 2022. Treatment frequency was two treatments per week for the first four weeks; then, following weekly treatment for another four weeks, the goal was to continue long-term care. Treatment principles followed the TCM diagnosis, and the treatment included TCM acupuncture, cupping, TDP (infrared) lamp therapy, and electroacupuncture, which has been shown to be effective (Li et al., 2020; Liu et al., 2015).

The acupuncture needles were stainless steel, single-use, sterilized, and exceeded industry standards for quality. Two sizes were used: 0.20 mm (diameter) × 25 mm (length) and 0.16 mm (diameter) × 15 mm (length).

During the first week, two treatments were performed. The patient provided feedback that afterward, she always felt exhausted and almost fainted, especially after electroacupuncture. Because of that, the practitioner changed the regimen to focus on the face area during one treatment and the leg area on the next, alternating between areas from visit to visit. When the intensity of the treatments was reduced, the patient felt a significant sense of comfort after each session.

The practitioner divided all degrees and acupuncture into three categories, as shown in the charts below. For example, on the first visit, Category 1 and Category 3 points were used. On the 2nd visit, points were switched to Category 2 and Category 3 points. Points from all three categories were used in the fifth week during one treatment.

	Name	Points	Notes
Category 1	Lower extremity points	ST36, GB31, GB34, GB39, KD6, ST41	All the points were bilateral with manual stimulation
Category 2	Facial points	Yintang, Yuyao, UB2, LI20, ST4, SI18, SJ17 (right side only)	UB2 to Yuyao, ST4 to SJ17 with electric stimulation 200Hz microampere, 10 minutes
Category 3	Constitutional points	SJ5, LV3, LU4, UB23, UB25, DU20, etc.	Depth of insertion within 10-15mm, needle retention time about 20 minutes.

Table 1. Details about each category and points selected

	Constitutional points	Lower extremity points	Facial points
1	✓	✓	
2	✓		✓
3	✓	✓	
4	✓		✓
5	✓	✓	
6	✓		✓
7	✓	✓	
8	✓		✓

Table 2. Weeks 1- 4 (two treatments per week beginning in early summer 2022)

	Constitutional points	Lower extremity points	Facial points
9	✓	✓	✓
10	✓	✓	✓
11	✓	✓	✓
12	✓	✓	✓

Table 3. Weeks 5-8 (one treatment per week)



Figure 2. Facial points



Figure 3. Constitutional points

Outcomes

In four weeks of treatment, a total of eight treatments were performed. The patient did not feel much change in Bell's palsy symptoms on the right side of the face, but she did feel a marked improvement on the right side of her leg. There was no pain on presentation, and the numbness and tingling sensation decreased by 60%; additionally, she had more flexibility and a better range of motion on the ankle. The sides of both knees and legs gained muscle mass and tone, improving her gait.

After eight weeks of treatment, a total of twelve treatments had been performed. The patient began to feel a slight improvement in the numbness of

the facial nerves. She could raise her eyebrows, but the right corner of her mouth was still numb, and she could still notice the difference in the affected area when she smiled.

At the date of publication, the treatment is ongoing once every two weeks, a total of 26 sessions thus far. The patient said acupuncture has dramatically helped her recovery from Guillain-Barré syndrome. Other than slight, occasional bruising where the needle is inserted, she has reported no other discomfort.

Discussion and Conclusion

Guillain-Barré syndrome is a rare disorder, and the exact cause of it is unknown. There is also currently no known cure. The patient opened her mind and gave acupuncture a try for her persistent GBS symptoms. After five months of regular treatment, the patient's health continues to improve.

This case report shows that acupuncture treatment eliminated the symptoms of weakness, numbness, and pain in a GBS-affected patient's limbs and improved the patient's quality of life. This case report may provide a new alternative and complementary therapy that eases symptoms and reduces the duration of the illness for all patients with Guillain-Barré syndrome and develop effective disease-modifying therapies that can limit the extent of nerve injury.

The weakness of this report is that more definitive and robust evidence is needed to support why acupuncture might help with Guillain-Barré syndrome and other nerve disorders. On PubMed.gov, there are only 13 articles discussing acupuncture for GBS, but 3,805 articles talk about acupuncture treatment for neuropathy; therefore, there is still much room for research and verification in future studies.

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Disclosure Statement

The author reported no conflicts of interest.

Informed Consent

Written informed consent was obtained from the patient for publication of this case report, and a copy of the written consent is on file with the author.

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