


Acupuncture for the Treatment of Depression and Physical Symptoms in Chronic Bipolar Disorder: A Case Report

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ABSTRACT

INTRODUCTION: Bipolar disorder (BD) is typically treated by pharmacotherapy. However, pharmacotherapy alone is often not adequate to cope with the variety of symptoms associated with BD. The present case report describes the therapeutic effects of manual acupuncture on a patient with chronic BD, and multiple concurrent physical symptoms, that did not improve with standard pharmacotherapy.

CASE: A 41-year-old woman with type II BD presented with depression, anxiety, and multiple physical symptoms. Her symptoms had first appeared 12 years prior, and she was diagnosed with type II BD 3 years after symptom onset. Although she received standard treatment, including medication and psychotherapy, her symptoms did not improve. Acupuncture treatment aimed at improving psychiatric and physical symptoms was performed weekly for 12 weeks. Depression and anxiety symptoms were evaluated using the Himorogi Self-Rating Depression Scale (HSDS) and Himorogi Self-Rating Anxiety Scale (HSAS) respectively. A visual analog scale (VAS) was used to evaluate physical symptoms including diarrhea, insomnia, and general malaise. Outcome measures were evaluated before each treatment.

RESULTS: Throughout the course of the acupuncture intervention, no changes were made to the patient's psychotropic medication regimen. HSDS and HSAS scores decreased after 12 weeks of acupuncture treatment and improvements in all physical symptoms, as measured by the VAS, were observed. Furthermore, psychiatric symptoms with hypomanic or mixed features were not exacerbated.

CONCLUSIONS: In this patient, acupuncture was effective in improving psychiatric and physical symptoms of type II BD. This non-pharmacological intervention may be a viable option for the treatment of BD-associated symptoms.

KEYWORDS: Acupuncture, anxiety, bipolar disorder, depression, physical symptoms

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Introduction

Bipolar disorder (BD) is a psychiatric illness that is characterized by recurrent depressive or manic/hypomanic episodes. The depressive state of BD is more resistant to treatment than unipolar depression.¹ Patients with BD frequently have concurrent physical symptoms such as neck pain, headache, low back pain, insomnia, malaise, and abdominal symptoms, which are associated with a reduction in quality of life and poorer prognosis.^{2,3} The physical and psychiatric symptoms that occur concurrently in BD are difficult to treat using pharmacotherapy alone. Therefore, the development of effective non-pharmacological interventions that complement pharmacotherapy is warranted.

Acupuncture is a traditional Japanese treatment involving oriental medicine that originated in China. Acupuncture therapy is used to treat a wide variety of conditions, such as cardiovascular, digestive, and orthopedic diseases. Moreover, acupuncture stimulation causes various physical reactions such as analgesia,⁴ activation of the autonomic nervous system,⁵ and improvement of local circulation via axon reflex.⁶ Through

these mechanisms, acupuncture can be expected to improve a wide range of symptoms, including those of mood disorders.

Previous reviews of the evidence base show that alternative medicine, including acupuncture, may be effective in alleviating depressive symptoms in mood disorders.⁷ A randomized controlled trial for patients with hypomania and depression in BD demonstrated the efficacy and safety of acupuncture.⁸ The study reported the results of 2 preliminary randomized controlled trials, with acupuncture intervention in all groups. Manic symptoms measured by the Young Mania Rating Scale, and depressive symptoms measured by the Inventory of depressive symptomatology-clinician rating, were reduced in all patients, regardless of their acupuncture assignments and symptom patterns on admission.⁸ However, the study focused on the use of acupuncture for the treatment of acute symptoms. Since patients with BD who had chronic depression were not included, it is unclear whether acupuncture would be an effective therapeutic option for chronic BD in this patient subgroup. BD's depressive state is likely to be persistent. Patients with chronic depressive symptoms represent a clinical challenge, and



studies in acute-stage patients alone are unclear as to whether acupuncture can be a useful treatment. Only a few reviews of acupuncture have reported its effectiveness as a complementary medicine for the treatment of the depressive symptoms of mood disorders, but most of these focused on major depressive disorders.^{9,10} Therefore, no studies have evaluated acupuncture in the context of the chronic depressive symptoms of BD.

Here, we report a case in which acupuncture was successfully used to improve BD symptomatology in a patient whose psychiatric and physical symptoms were not improved by standard pharmacotherapy.

Case Description

History of presenting condition

A 41-year-old woman with type II BD presented with a history of recurrent episodes of hypomania, depression, and anxiety symptoms. Her symptoms had first appeared 12 years prior, at which point, she experienced the concurrent onset of multiple physical symptoms. Among these, diarrhea, insomnia, and general malaise were particularly difficult to endure. Three years post-symptom onset, she was transferred to our clinic as the pharmacological treatment that she had received at another clinic had not resulted in symptomatic improvement. At our clinic, she was diagnosed with type II BD by a psychiatrist and her medication regimen was adjusted. Despite several attempts to treat her with various types of medication and psychotherapy, none of these therapeutic options led to substantial improvements in her mood. Additionally, mood stabilizers, such as lithium carbonate and lamotrigine, were discontinued due to their side effects. Although the standard therapeutic regimen was maintained, the patient continued to experience episodes of hypomania and depression. To address this problem, acupuncture treatment was performed as a potential complement to pharmacotherapy.

Description of patient

Acupuncture treatment was initiated 9 years after the patient's diagnosis. At her first treatment visit, she presented with symptoms consistent with a depressive episode, as defined by DSM-5. The patient had experienced episodes of hypomania in the past, but there were no current episodes of hypomania. Type I BD was negative because the past manic symptoms were mild. Symptoms related to psychomotor retardation, such as lethargy and lack of motivation, were particularly noticeable. She did not demonstrate hallucinations, delusions, thought disorders, or suicidal tendencies. Physical symptoms included diarrhea, insomnia, and general malaise, which worsened with the deterioration of psychiatric symptoms. She had no family history of BD or other psychiatric comorbidities. The medication used were suvorexant (20 mg/day), ethyl loflazepate (2 mg/day), and perospirone (2 mg/day).

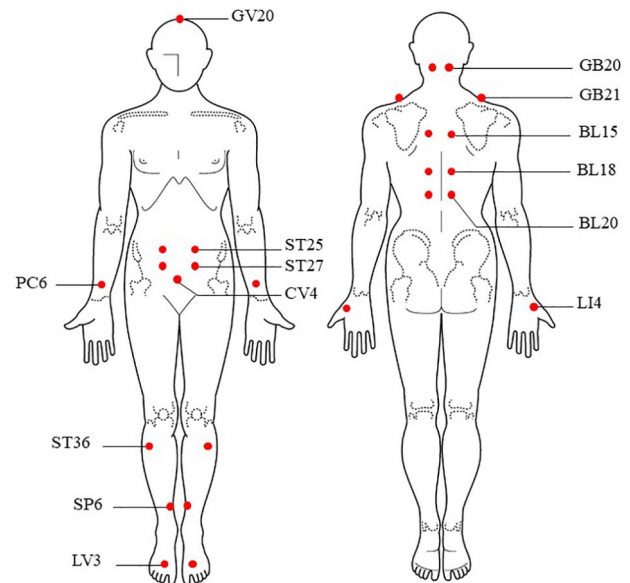


Figure 1. The acupoints used for treatment.

Acupuncture treatment

The acupuncture treatment was performed weekly for 3 months (a total of 12 treatments) with the aim of improving depressive and physical symptoms. The acupoints used for the treatment are shown in Figure 1. LV3, SP6, ST36, LI4, PC6, BL15, BL18, BL20, GB20, and GV20 were used as acupoints for depressive symptoms. These have previously been used in the investigation of acupuncture for the treatment of depression.¹¹ The acupoints ST25, ST27, and CV4 were used to target abdominal symptoms by triggering a gastrointestinal reaction through the viscerosomatic reflex.¹² The acupoint GB21 was used to alleviate increased trapezius muscle tonus that was detected by palpation. Acupuncture was started in the prone position and switched to supine position after 10 minutes of indwelling. Neck and back acupoints were used with the patient in the prone position, while the head, abdomen, and extremity acupoints were used with the patient in supine position. All acupoints were used in each treatment. These acupoints are officially defined by the World Health Organization.¹³ Sterilized, single-use 0.16 mm × 40 mm acupuncture needles (SEIRIN Co., Shizuoka, Japan) were inserted into all the selected acupoints at a depth of 10 to 20 mm from the skin and were left for 10 minutes. The duration of retention was determined based on the sensitivity of the patient. We did not deliberately trigger de qi. After insertion, the needles were not manually manipulated.

Outcome measures

All outcome measures were administered before each acupuncture treatment for the entirety of the treatment duration.

Depression and anxiety symptoms were evaluated using the Himorogi Self-Rating Depression Scale (HSDS) and Himorogi Self-Rating Anxiety Scale (HSAS), respectively.

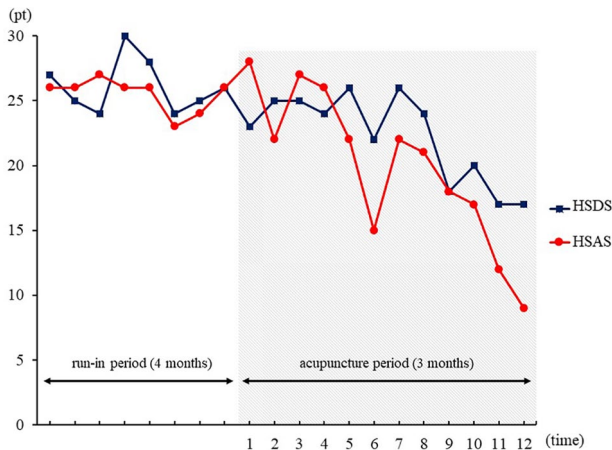


Figure 2. Change in the Himorogi Self-Rating Depression Scale/ Himorogi self-rating anxiety scale scores during the run-in and acupuncture treatment periods.

The HSDS and HSAS both comprise 10 items to identify a patient's symptoms within a short period of time. Scores range from 0 to 39 points, with higher scores indicating more severe symptomology. The reliability and validity of these questionnaires have been verified.^{14,15} HSDS and HSAS data were collected 4 months before the start of acupuncture using an electronic medical record to demonstrate the course before the acupuncture intervention as a run-up period.

The visual analog scale (VAS) was used to evaluate physical symptoms such as diarrhea, insomnia, and general malaise. Using the VAS, the patient evaluated symptom severity by marking a point along a 100 mm straight line, where the ends represented the extremes of the severity scale; the left end indicated "no symptoms" and the right end indicated "very severe symptoms."

Results

Changes in depressive and anxiety symptoms

A 4-month standard pharmacotherapeutic course was used as a run-in period prior to the commencement of the acupuncture treatment. Within this period, there were no major changes in the HSDS and HSAS scores.

At the patient's first treatment visit, her HSDS and HSAS scores were 23 and 28 points, respectively, indicating moderate depression and anxiety. After the 4th, 8th, and 12th acupuncture treatment visits, her HSDS score decreased to 24, 18, and 17 points, respectively; and her HSAS score decreased to 22, 18, and 9 points, respectively. These changes in HSDS and HSAS scores indicate that the severity of the patient's depressive symptoms decreased from moderate to mild and her anxiety symptoms decreased from moderate to extremely low (Figure 2).

An episode of hypomania or mixed symptoms during the acupuncture period was dismissed by the attending physician. There were no changes made to the patient's psychotropic medications during the treatment period.

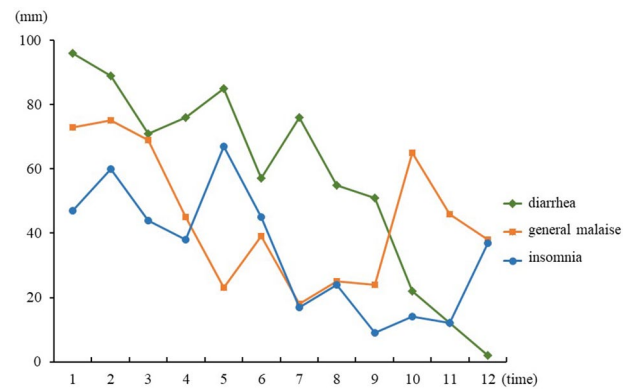


Figure 3. Change in the visual analog scale scores for diarrhea, insomnia, and general malaise during acupuncture treatment.

Changes in physical symptoms

The VAS scores for the 1st, 4th, 8th, and 12th visit were 96, 85, 51, and 2 mm for diarrhea; 47, 67, 9, and 37 mm for insomnia; and 75, 23, 24, and 31 mm for general malaise, respectively (Figure 3).

Discussion

In the present case, we examined the efficacy of acupuncture as a treatment for depressive, anxiety, and physical symptoms in a pharmacologically treatment-resistant patient with BD. We found that this treatment improved both psychiatric and physical symptoms. Until now, studies of the effectiveness of acupuncture for depressive symptoms have focused on major depressive disorders.^{7,9,10} Although a previously published randomized controlled trial has suggested that acupuncture is effective for the depressive symptoms of BD, it only focused on acute symptoms.⁸ To the best of our knowledge, this is the first report in which acupuncture is shown to be effective in treating chronic BD.

Psychomotor retardation in patients with depression has previously been reported to be associated with decreased physical activity, thereby exacerbating depressive symptoms.^{16,17} In these cases, difficulties are often observed, such as the inability to carry out basic activities of daily life. Furthermore, the presence of concurrent physical symptoms in depressive patients has been reported to be negatively correlated with the course of depressive symptoms.¹⁸ Similarly, our patient's psychiatric symptoms, especially psychomotor retardation, may have been affected by her physical symptoms. Therefore, we suggest that the patient's psychomotor retardation and physical symptoms triggered a negative cycle of chronic bipolar depression, which may have been exacerbated by decreased physical activity.

Based on this, we performed acupuncture therapy. The patient's physical symptoms were alleviated early in the course of treatment, which was followed by improvements in psychiatric symptoms. Acupuncture has been previously reported to be effective for the physical symptoms such as diarrhea,¹⁹ general malaise,²⁰ and insomnia.²¹ The patient in

the present case complained of having all these symptoms; their reduction after acupuncture indicates that it was effective for these physical symptoms in the present case. Moreover, the negative cycle-induced decline in physical activity was alleviated by the reduction of physical symptom severity, and the patient's mood appeared to be stable. The combination of acupuncture and conventional pharmacotherapy to treat patients with major depressive disorders presenting with moderate-severe symptoms has previously been reported to be associated with greater symptomatic improvements than pharmacotherapy alone.²² The present case indicates that acupuncture may also improve the depressive symptoms associated with BD.

It is important to note that the possible hypomanic episode experienced by the patient within the treatment period may have contributed to the observed improvement in mood and increase in activity. In patients with type II BD, as the disorder progresses, depressive states typically occur more frequently than hypomanic or mixed symptom states.²³ The possible hypomanic state observed in the present case was dismissed by the attending physician at our clinic. It is difficult for non-specialists to identify hypomania; therefore, to ensure accurate observations and adequate follow-up in future cases, the acupuncture treatment for BD should be monitored by a psychiatrist.

Mood stabilizers are often recommended for the treatment of BD; however, for some patients, this treatment is inadequate due to side effects.²⁴ In addition, using pharmacotherapy alone to treat cases where a patient presents with BD and multiple concurrent physical symptoms can pose a risk of overdose. In the present case, the successful treatment of BD symptoms using acupuncture circumvented some of the problems associated with the use of pharmacotherapy in a treatment-resistant patient. Further case series and comparative studies will be needed in future to confirm the finding of this case report that has limited generalizability.

Conclusion

The present case highlights the clinical significance of acupuncture as a treatment for BD, in that it has potential to be a viable alternative for patients with BD who do not respond to pharmacotherapy. In this case, acupuncture helped treat both the psychiatric and physical symptoms associated with the disorder. Therefore, acupuncture may be a non-pharmacological treatment that can provide a comprehensive treatment for BD.

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Author Contributions

YW and YM contributed to conceptualization. YM contributed data collection and wrote the original draft of the manuscript. HT contributed to interpretation of data and assisted in

the preparation of the manuscript. YW, YK, FY and TS critically reviewed & edited the manuscript. All authors approved the final version of the manuscript, and agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Ethics

This study was approved by the Himorogi Psychiatric Institute Institutional Review Board (201704-02) on April 19, 2017. Written informed consent was obtained from the patient, following both written and verbal explanations about the freedom to participate in the present study/withdraw consent, privacy protection, and to publish the findings of this case study.

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