OPEN ACCESS
Jurnal Medicare Vol 5 No 4, October (2026) https://doi.org/10.62354/jurnalmedicare.v5i1.481
Check for updates
Research Article

ACUPUNCTURE CARE FOR A PATIENT WITH MIGRAINE AT GRIYA SEHAT MUSLIMAH MAKASSAR

Received: August 5th 2026	Revised: October 7th 2026	Accepted: October 28th 2026	Published: October 31th 2026

Adriyanti Widia Hastuti[1#], Mayang Wulandari[2], Amal Prihatono[3], Chantika Mahadini[4]

Abstract:

Background: Migraine is a primary neurological disorder characterized by recurrent headaches of moderate to severe intensity that can interfere with daily activities and reduce quality of life. Acupuncture is used as a complementary approach in migraine management; however, findings from an individual case cannot establish treatment efficacy.

Objective: This study aimed to describe the assessment, diagnosis, treatment principles, acupuncture intervention, and clinical response in a patient with migraine at Griya Sehat Muslimah Makassar.

Methods: This qualitative study employed a single-case study design involving one 44-year-old woman with a three-month history of right temporal throbbing headache. The initial headache intensity was recorded as 7, although the measurement instrument was not specified in the source record. Data were collected using a Client Data Sheet and the four traditional Chinese medicine (TCM) examination methods: inspection (Wang), auscultation and olfaction (Wen), inquiry (Wen), and palpation (Qie). Acupuncture treatment was administered in six sessions.

Results: At the initial assessment, the participant reported headache, dizziness, nausea, irritability, difficulty relaxing, heat sensations, excessive thirst, and difficulty initiating sleep. Examination findings included a reddish facial complexion, a red tongue with a very thin coating, and a rapid pulse. At the sixth-session assessment, the participant reported that the headache, dizziness, and nausea were no longer present. She also reported feeling more relaxed and having less difficulty initiating sleep. The tongue was described as pink with a thin coating, while the pulse remained rapid. A numerical post-treatment pain score and session-by-session pain measurements were not available.

Conclusion: Symptom improvement was reported in this participant following six acupuncture sessions. This case describes a clinical response during the observation period and does not establish the general effectiveness of acupuncture for migraine.

Keywords: acupuncture; migraine; case study; traditional chinese medicine.

Publisher Note:
CV Rena Cipta Mandiri stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Copyright ©2026 by the author(s).
License Rena Cipta Mandiri, Malang, Indonesia. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution-ShareAlike (CCBY-SA)license (https://creativecommons.org/licenses/by-sa/4.0/).

1. INTRODUCTION

Migraine is a primary neurological disorder characterized by recurrent attacks of moderate-to-severe headache, commonly accompanied by nausea, vomiting, photophobia, or phonophobia. Migraine attacks can last between 4 and 72 hours and may substantially interfere with daily activities, work productivity, and social participation. Globally, migraine affects more than one billion individuals and represents an important contributor to neurological disability (Ashina et al., 2021; Safiri et al., 2022).

The burden of migraine is particularly significant among women, especially during reproductive years. Hormonal fluctuations, genetic susceptibility, environmental factors, and lifestyle-related triggers may contribute to migraine attacks. In addition to headache, patients may experience dizziness, fatigue, sleep disturbances, emotional discomfort, and reduced quality of life (Ashina et al., 2021; Buse et al., 2022).

Based on a preliminary review of medical records at Griya Sehat Muslimah Makassar, 52 of 100 patients treated between July and December 2025 experienced recurrent headache complaints, while 18 patients were recorded as having migraine. These findings indicate that recurrent headache and migraine were among the complaints encountered in the facility. However, the available records did not specify the diagnostic criteria used for migraine, whether the diagnoses had been established by medical doctors, or whether the International Classification of Headache Disorders, third edition (ICHD-3), had been applied.

Migraine management generally involves pharmacological and non-pharmacological approaches. Pharmacological treatment includes acute therapies and preventive medications, while non-pharmacological approaches may involve lifestyle modification, behavioral interventions, and complementary therapies. Although pharmacological treatments are important in migraine management, some patients may require additional approaches to support symptom management and quality of life (Ashina et al., 2021; Ailani et al., 2021).

Acupuncture is one of the complementary approaches that has been investigated for migraine management. Previous clinical studies have evaluated its potential benefits in reducing migraine frequency, headache intensity, and the use of analgesic medication. A randomized clinical trial by Xu et al. (2020) compared manual acupuncture with sham acupuncture and usual care in patients with episodic migraine without aura. The study reported clinical benefits associated with manual acupuncture. Similarly, systematic reviews have evaluated acupuncture as a potential option for migraine prevention and symptom management (Li et al., 2020; Ou et al., 2020; Zhang et al., 2020).

Recent evidence has further examined the relationship between acupuncture treatment dose and clinical outcomes. Yang et al. (2024), in a systematic review and meta-regression involving 32 randomized controlled trials, identified a non-linear relationship between the number of acupuncture sessions, treatment frequency, and migraine attack frequency. However, the authors also reported limitations in the methodological quality and reporting of the included trials. A systematic review published in 2025 found that acupuncture may have a role as an adjunctive approach in migraine prevention, although the evidence remains heterogeneous (Acupuncture Versus Standard Medical Care, 2025).

From a biomedical perspective, migraine involves complex neurological mechanisms, including trigeminovascular activation, altered pain processing, and neuropeptide signalling. Acupuncture-related pain modulation has been investigated through neuroimaging and neurophysiological research. Liu et al. (2021) reported that acupuncture may influence several brain regions involved in pain processing in patients with migraine. These findings provide a potential scientific basis for further investigating acupuncture in migraine care.

Within Traditional Chinese Medicine (TCM), migraine management is based on individualized pattern differentiation. The assessment includes inspection, auscultation and olfaction, inquiry, and palpation. The findings are used to establish the syndrome diagnosis and determine the treatment principles and acupuncture points. In patients presenting with headache, irritability, heat sensations, and a rapid pulse, Liver Yang Rising may be considered as one of the possible TCM patterns (Maciocia, 2015).

Although previous randomized clinical trials and systematic reviews have investigated the clinical outcomes of acupuncture for migraine, they generally focus on treatment effectiveness, migraine frequency, or pain intensity. A detailed description of the assessment process, TCM syndrome diagnosis, treatment principles, point selection, and clinical evaluation in an individual patient remains valuable for understanding the application of individualized acupuncture care in clinical practice.

The research gap addressed in this study concerns the limited description of the complete acupuncture care process in an individual patient with migraine, particularly the integration of biomedical complaints and TCM pattern differentiation over multiple treatment sessions. The novelty of this case study lies in its descriptive presentation of the assessment, Gan Yang Shang Kang (Liver Yang Rising) pattern diagnosis, selection of eight acupuncture points, and reported clinical changes following six treatment sessions in a patient treated at Griya Sehat Muslimah Makassar.

Therefore, this study aimed to describe acupuncture care for a patient with migraine at Griya Sehat Muslimah Makassar, including the assessment process, diagnosis, treatment principles, acupuncture intervention, and clinical response after six treatment sessions.

2. MATERIAL AND METHOD

2.1 Research Design

This study employed a qualitative descriptive approach using a single-case study design. The case study focused on the comprehensive description of acupuncture care in one patient with migraine. The research included clinical assessment, TCM pattern differentiation, treatment planning, acupuncture intervention, and evaluation of the participant's clinical response.

2.2 Research Subject

The research subject was one 44-year-old woman who worked as a housewife and presented with a three-month history of right temporal throbbing headache. The initial headache intensity was recorded as 7. However, the original clinical documentation did not identify the pain measurement instrument. The original manuscript did not provide detailed inclusion and exclusion criteria or the procedure used to select the participant. It also did not specify whether the migraine diagnosis had been formally established by a medical doctor or determined through the practitioner's assessment.

2.3 Research Location and Time

The study was conducted at Griya Sehat Muslimah Makassar, located at Komplek Pesona Prima Griya D3/37, Makassar, South Sulawesi, Indonesia. The first acupuncture session was conducted on January 5, 2026. A total of six acupuncture sessions were reported.

2.4 Research Procedures

The research procedures consisted of the following stages:

1. Initial assessment of the participant's identity, main complaints, associated symptoms, and medical history.
2. TCM examination using the four diagnostic methods.
3. Establishment of the acupuncture diagnosis and TCM syndrome pattern.
4. Determination of treatment principles and acupuncture point selection.
5. Administration of acupuncture treatment over six sessions.
6. Evaluation and comparison of clinical findings between the initial and final assessments.

The acupuncture prescription consisted of LR3 (Taichong), GB20 (Fengchi), LI4 (Hegu), Taiyang (EX-HN5), LR2 (Xingjian), HT7 (Shenmen), PC6 (Neiguan), and Anmian (EX-HN22). The treatment principles were to subdue Liver Yang hyperactivity, calm the Liver, clear Heat, and regulate Qi and blood. The original manuscript did not provide detailed information about the frequency of each session, duration of treatment, needle insertion depth, insertion angle, stimulation technique, needle-retention time, or needle specifications.

2.5 Data Collection Techniques and Research Instruments

Data were collected using a Client Data Sheet (CDS). The assessment followed the four diagnostic methods of TCM:

1. Inspection (Wang): Assessment of the participant's general appearance, facial complexion, body condition, and tongue characteristics.

2. Auscultation and Olfaction (Wen): Assessment of voice, body sounds, and body odour.
3. Inquiry (Wen): Collection of information regarding the participant's identity, main complaints, medical history, lifestyle, temperature sensations, thirst, hearing, and sleep patterns.
4. Palpation (Qie): Examination of the affected area, relevant acupuncture points, and pulse characteristics.

Clinical changes were documented descriptively based on the participant's complaints and examination findings. The initial headache intensity was recorded as 7.

2.6 Data Analysis

The collected data were analyzed descriptively by comparing the initial and final assessment findings. The analysis focused on changes in headache complaints, associated symptoms, facial complexion, tongue characteristics, tenderness, and pulse findings. Because this study involved one participant and did not include a comparison group or complete repeated numerical measurements, no inferential statistical analysis was performed.

2.7 Research Scope and Limitations

This study was limited to one participant who received six acupuncture sessions at Griya Sehat Muslimah Makassar. The findings were based on clinical documentation and participant-reported changes. The study did not include a control group, long-term follow-up, or standardized repeated pain measurements. Detailed intervention procedures and some intermediate-session findings were also unavailable. Therefore, the findings cannot be generalized to all patients with migraine or interpreted as proof of acupuncture effectiveness.

3. RESULT AND DISCUSSION

3.1 Results

3.1.1 Participant Characteristics

The participant was a 44-year-old woman who presented with right-sided temporal throbbing headache that had persisted for approximately three months. The initial headache intensity was recorded as 7. The participant also reported dizziness, nausea, irritability, difficulty relaxing, heat sensations over the vertex and right auricle, excessive thirst, and difficulty initiating sleep. She reported that headache attacks could occur following stress, anger, and fatigue.

3.1.2 Initial TCM Assessment

The initial assessment identified the following findings:

1. **Inspection (Wang):** The facial complexion appeared reddish. The tongue was red with a very thin coating.
2. **Auscultation and Olfaction (Wen):** No pathological findings were identified.
3. **Inquiry (Wen):** The participant reported heat sensations, excessive thirst, and difficulty initiating sleep. No fever was reported.
4. **Palpation (Qie):** Tenderness was identified in the right temporal region, and the pulse was described as rapid.

Based on these findings, the documented TCM pattern diagnosis was Gan Yang Shang Kang (Liver Yang Rising).

3.1.3 Clinical Changes Following Six Acupuncture Sessions

The participant received six acupuncture sessions. The original clinical documentation provided detailed findings from the first and sixth sessions. The comparison of clinical findings is presented in Table 1.

OPEN ACCESS
Jurnal Medicare Vol 5 No 4, October (2026) https://doi.org/10.62354/jurnalmedicare.v5i1.481
Check for updates
Research Article

Table 1. Comparison of Clinical Findings Before and After Six Acupuncture Sessions

Assessment Parameters	First Session	Sixth Session
Main complaint	Right temporal throbbing headache	No headache reported
Headache duration	Approximately 3 months	No headache reported at final assessment
Initial pain intensity	7	Numerical score unavailable
Dizziness	Present	Reported resolved
Nausea	Present	Reported resolved
Emotional condition	Irritability and difficulty relaxing	Felt more relaxed
Heat sensation	Present	No longer reported
Thirst	Frequently thirsty	No longer excessively thirsty
Sleep	Difficulty initiating sleep	Easier sleep initiation
Facial complexion	Reddish	Brownish
Tongue characteristics	Red with a very thin coating	Pink with a thin coating
Tenderness	Right temporal tenderness	No tenderness reported in the face and hand
Pulse	Rapid	Rapid

Table 1 shows that the participant reported improvements in the main headache complaint and several associated symptoms after six acupuncture sessions. However, the absence of a numerical post-treatment pain score prevented quantitative assessment of the magnitude of pain reduction.

3.1.4 Changes in TCM Examination Findings

At the sixth-session assessment, the participant reported that the headache, dizziness, and nausea were no longer present. She also reported feeling more relaxed and having less difficulty initiating sleep. The tongue examination showed a change from a red tongue with a very thin coating to a pink tongue with a thin coating. The facial complexion was described as changing from reddish to brownish. Tenderness was no longer reported in the face and hand. However, the initial tenderness had specifically been documented in the right temporal region. The anatomical location of tenderness should therefore be verified against the original clinical record. The pulse remained rapid at the sixth-session assessment despite the reported improvement in symptoms.

3.2 Discussion

3.2.1 Interpretation of the TCM Syndrome Diagnosis

The documented acupuncture diagnosis was migraine with Gan Yang Shang Kang (Liver Yang Rising) syndrome. This diagnosis was based on the combination of right temporal headache, irritability, heat sensations over the vertex and right auricle, excessive thirst, a red tongue with a very thin coating, and a rapid pulse. In TCM, Liver Yang Rising may manifest as headache, dizziness, irritability, and signs of ascending Yang. The temporal region is associated with the Gallbladder channel pathway, which is functionally related to the Liver system within TCM theory. A red tongue and rapid pulse may indicate Heat, while a very thin tongue coating may suggest an imbalance involving Yin and body fluids. The combination of these findings was considered consistent with the documented Gan Yang Shang Kang pattern (Maciocia, 2015). At the sixth assessment, the participant reported improvement in several symptoms. The tongue was also described as pink with a thin coating. However, the pulse remained rapid. This indicates that not all clinical and TCM examination findings changed in parallel. The persistence of a rapid pulse should not automatically be interpreted as treatment failure or

complete resolution. In TCM, pulse diagnosis requires assessment of multiple characteristics, including rate, depth, force, and quality. Since these details were not documented, the final syndrome status cannot be determined conclusively.

3.2.2 Treatment Principles and Selection of Acupuncture Points

The treatment principles were to subdue Liver Yang hyperactivity, calm the Liver, clear Heat, and regulate Qi and blood. The selected acupuncture points were LR3, GB20, LI4, Taiyang, LR2, HT7, PC6, and Anmian. LR3 (Taichong) was selected to regulate Liver Qi and support the treatment of Liver Yang hyperactivity. GB20 (Fengchi) was selected to address headache and dizziness, particularly symptoms involving the head and temporal region. LI4 (Hegu) was selected to regulate Qi and relieve pain and is commonly used in acupuncture prescriptions for headache. Taiyang (EX-HN5) was selected as a local point to address temporal headache. LR2 (Xingjian) was included to clear Liver Heat and support the treatment principle of subduing excessive Liver Yang. HT7 (Shenmen) and PC6 (Neiguan) were selected to address emotional discomfort, restlessness, and associated symptoms. Anmian (EX-HN22) was included as an additional point to support sleep improvement. The point selection was based on the documented TCM pattern diagnosis and the participant's clinical manifestations. The original manuscript did not explicitly distinguish primary and supplementary points; therefore, the prescription is described as a combination of the eight documented points.

3.2.3 Consistency of Acupuncture Point Selection

The same acupuncture points were reportedly used from the second through the sixth sessions without additions or omissions. The practitioner maintained the initial prescription because the participant was reported to have experienced improvement following treatment. From a TCM perspective, maintaining the same prescription may be considered when the initial pattern diagnosis remains consistent and the patient's symptoms show a favorable response. However, the original manuscript did not provide complete assessment findings for sessions two to five. Consequently, it cannot be established whether the unchanged prescription was supported by a complete reassessment at every visit.

3.2.4 Potential Biomedical Mechanisms of Acupuncture

The TCM approach explains acupuncture through the regulation of Qi and blood and the restoration of functional balance. From a biomedical perspective, migraine involves complex neurological processes, including trigeminovascular activation, neuropeptide signalling, and altered central pain processing. Calcitonin gene-related peptide (CGRP) is one of the important neuropeptides involved in migraine pathophysiology (Ashina et al., 2021). Acupuncture-related analgesia has been investigated in relation to peripheral sensory stimulation, spinal and supraspinal pain-processing networks, descending inhibitory pathways, and endogenous pain-modulating substances. A systematic review by Liu et al. (2021) examined neuroimaging evidence concerning the potential neural mechanisms of acupuncture in migraine. The findings suggested that acupuncture may influence brain regions and functional networks involved in pain processing. These mechanisms provide a potential biomedical explanation for the use of acupuncture in migraine management. Nevertheless, no biomarkers, neuroimaging findings, or neurophysiological measurements were obtained in the present case. Therefore, the mechanisms cannot be directly attributed to the clinical changes observed in this participant.

3.2.5 Comparison with Previous Research

The clinical changes reported in this case can be considered alongside previous studies investigating acupuncture for migraine. Xu et al. (2020) conducted a multicentre randomized clinical trial comparing manual acupuncture, sham acupuncture, and usual care in patients with episodic migraine without aura. The study reported that manual acupuncture provided benefits in migraine prevention. Ou et al. (2020) conducted a systematic review and meta-analysis examining the therapeutic effects of acupuncture on migraine. Their findings suggested potential benefits of acupuncture as a supplementary and preventive intervention.

Similarly, Song et al. (2023) evaluated acupuncture for migraine prophylaxis through a systematic review and Bayesian network meta-analysis. Their findings contributed to the evidence regarding acupuncture treatment options for migraine prevention. More recently, Yang et al. (2024) analyzed 32 randomized controlled trials and identified a non-linear dose-response relationship between acupuncture sessions, treatment frequency, and migraine attack frequency. The review suggested that treatment dose may influence clinical outcomes, although limitations in the reporting quality of the included studies remained. In contrast, the present study involved only one participant who received six treatment sessions. There was no control group, no standardized repeated pain measurement, and no long-term follow-up. Therefore, the findings cannot be directly compared with the treatment effects reported in randomized controlled trials. The reported improvement in headache, dizziness, nausea, relaxation, and sleep initiation should be interpreted as a clinical response observed during the treatment period rather than proof of a causal effect of acupuncture.

3.2.6 Implications

This case highlights the importance of comprehensive assessment before acupuncture intervention. The integration of participant-reported symptoms and TCM examination findings provides a basis for determining the treatment principles and acupuncture point selection. The case also illustrates the importance of documenting clinical changes during each treatment session. Standardized pain assessment instruments and systematic recording of associated symptoms may improve the quality of clinical evaluation and facilitate comparisons across treatment sessions.

3.2.7 Research Contribution

The contribution of this study is its descriptive presentation of acupuncture care in one patient with migraine, particularly the integration of clinical assessment, TCM pattern diagnosis, treatment principles, point selection, and evaluation after six sessions. The study also provides a clinical case description that may serve as a reference for further research involving individualized acupuncture care in patients with migraine.

3.2.8 Limitations

This study has several limitations. First, it involved only one participant, which limits the generalizability of the findings. Second, the original clinical documentation did not specify the formal diagnostic criteria used to establish migraine. Third, the pain assessment instrument was not identified, and no numerical post-treatment pain score was available. Fourth, detailed findings from sessions two to five were not documented. Fifth, information regarding needle insertion depth, treatment duration, stimulation technique, and safety monitoring was incomplete. Finally, no long-term follow-up was conducted after the sixth session. These limitations prevent causal interpretation and restrict the conclusions to the reported clinical response during the observation period.

3.2.9 Suggestions

Future case studies should use standardized migraine diagnostic criteria and validated pain measurement instruments, such as the Numeric Rating Scale or Visual Analogue Scale. Clinical findings should be documented at every treatment session, including headache intensity, headache duration, associated symptoms, sleep quality, and relevant TCM examination findings. Further research involving larger samples, comparison groups, detailed acupuncture protocols, and longer follow-up periods is needed to evaluate the clinical role of acupuncture in migraine management.

4. CONCLUSION

In this single-case study, a 44-year-old woman with a three-month history of right temporal headache and associated symptoms reported improvement following six acupuncture sessions. The documented TCM pattern diagnosis was Gan Yang Shang Kang (Liver Yang Rising). The acupuncture

prescription consisted of LR3 (Taichong), GB20 (Fengchi), LI4 (Hegu), Taiyang (EX-HN5), LR2 (Xingjian), HT7 (Shenmen), PC6 (Neiguan), and Anmian (EX-HN22). Following the six treatment sessions, the participant reported improvement in headache, dizziness, nausea, relaxation, and sleep initiation. Several TCM examination findings also changed, although the pulse remained rapid. These findings describe a clinical response in one participant during the observation period.

AUTHOR CONTRIBUTION STATEMENT

AH : Conceptualization, Methodology, Investigation, Data curation, Formal analysis, Writing—original draft. AP, CM : Supervision, Methodology, Validation, Writing—review and editing,

AUTHOR INFORMATION

Corresponding Authors

Adriyanti Widia Hastuti
Institut Teknologi, Sains, dan Kesehatan RS dr. Soepraoen Kesdam V/Brawijaya, Indonesia
Email: adriwidiah21@gmail.com
Phone (WhatsApp): +62 811-467-577

Authors

Mayang Wulandari
Institut Teknologi, Sains, dan Kesehatan RS dr. Soepraoen Kesdam V/Brawijaya, Indonesia
https://orcid.org/0009-0009-1923-2497

Amal Prihatono
Institut Teknologi, Sains, dan Kesehatan RS dr. Soepraoen Kesdam V/Brawijaya, Indonesia
https://orcid.org/0009-0002-3222-3586

Chantika Mahadini
Institut Teknologi, Sains, dan Kesehatan RS dr. Soepraoen Kesdam V/Brawijaya, Indonesia
https://orcid.org/0009-0007-6850-3439

REFFERENCE

Ailani, J., Burch, R. C., & Robbins, M. S. (2021). The American Headache Society consensus statement: Update on integrating new migraine treatments into clinical practice. *Headache, 61*(7), 1021–1039. https://doi.org/10.1111/head.14153

Ashina, M., Katsarava, Z., Do, T. P., Buse, D. C., Pozo-Rosich, P., Özge, A., Krymchantowski, A. V., Lebedeva, E. R., Ravishankar, K., Yu, S., Sacco, S., Ashina, S., Younis, S., Steiner, T. J., & Lipton, R. B. (2021). Migraine: Epidemiology and systems of care. *The Lancet, 397*(10283), 1485–1495. https://doi.org/10.1016/S0140-6736(20)32160-7

Ashina, M., Terwindt, G. M., Al-Karagholi, M. A. M., de Boer, I., Lee, M. J., Hay, D. L., Schulte, L. H., Hadjikhani, N., Sinclair, A. J., Ashina, H., Schwedt, T. J., & Goadsby, P. J. (2021). Migraine: Disease characterisation, biomarkers, and precision medicine. *The Lancet, 397*(10283), 1496–1504. https://doi.org/10.1016/S0140-6736(20)32162-0

Ashina, M., Buse, D. C., Ashina, H., Pozo-Rosich, P., Peres, M. F. P., Lee, M. J., Terwindt, G. M., Halker Singh, R., Tassorelli, C., Do, T. P., Mitsikostas, D. D., & Dodick, D. W. (2021). Migraine: Integrated approaches to clinical management and emerging treatments. *The Lancet, 397*(10283), 1505–1518. https://doi.org/10.1016/S0140-6736(20)32342-4

Buse, D. C., Greisman, J. D., Baigi, K., & Lipton, R. B. (2022). Migraine progression: A systematic review. *Headache, 62*(1), 1–17. Google Scholar

Headache Classification Committee of the International Headache Society. (2018). The International Classification of Headache Disorders, 3rd edition. *Cephalalgia, 38*(1), 1–211. https://doi.org/10.1177/0333102417738202

Li, X., Dai, Q., Shi, Z., Chen, H., Hu, Y., Wang, X., Zhang, X., & Tian, G. (2019). Clinical efficacy and safety of electroacupuncture in migraine treatment: A systematic review and network meta-analysis. *The American Journal of Chinese Medicine, 47*(8), 1755–1780. https://doi.org/10.1142/S0192415X19500897

Li, Y. X., Xiao, X. L., Zhong, D. L., Luo, L. J., Yang, H., Zhou, J., He, M. X., Shi, L. H., Li, J., Zheng, H., & Jin, R. J. (2020). Effectiveness and safety of acupuncture for migraine: An overview of systematic reviews. *Pain Research and Management, 2020*, Article 3825617. https://doi.org/10.1155/2020/3825617

Liu, L., et al. (2021). Revealing the neural mechanism underlying the effects of acupuncture on migraine: A systematic review. *Frontiers in Neuroscience, 15*, Article 674852. https://doi.org/10.3389/fnins.2021.674852

Maciocia, G. (2015). *The foundations of Chinese medicine: A comprehensive text* (3rd ed.). Elsevier. Google Scholar

Naguit, N., Laeeq, S., Jakkoju, R., Reghefaoui, T., Zahoor, H., Yook, J. H., Rizwan, M., Shahid, N. U. A., & Mohammed, L. (2022). Is acupuncture safe and effective treatment for migraine? A systematic review of randomized controlled trials. *Cureus, 14*(1), Article e20888. https://doi.org/10.7759/cureus.20888

Ou, M. Q., Fan, W. H., Sun, F. R., Jie, W. X., Lin, M. J., Cai, Y. J., Liang, S. Y., Yu, Y. S., Li, M. H., Cui, L. L., & Zhou, H. H. (2020). A systematic review and meta-analysis of the therapeutic effect of acupuncture on migraine. *Frontiers in Neurology, 11*, Article 596. https://doi.org/10.3389/fneur.2020.00596

Safiri, S., Pourfathi, H., Eagan, A., Mansournia, M. A., Khodayari, M. T., Sullman, M. J. M., Kaufman, J., Collins, G., Dai, H., Bragazzi, N. L., & Kolahi, A. A. (2022). Global, regional, and national burden of migraine in 204 countries and territories, 1990 to 2019. *Pain, 163*(2), e293–e309. https://doi.org/10.1097/j.pain.0000000000002275

Song, Z. W., Liu, Y. P., Cui, S., Hu, J., Ma, W. Q., Chen, Z. J., Huo, J., Gao, Q., Ma, S. H., & Wang, J. J. (2023). Effectiveness of acupuncture for prophylactic treatment of migraine: A systematic review and Bayesian network meta-analysis. *Advanced Biology, 7*(10), Article e2300134. https://doi.org/10.1002/adbi.202300134

Wang, Y., Du, R., Cui, H., Zhang, L., Yuan, H., & Zheng, S. (2023). Acupuncture for acute migraine attacks in adults: A systematic review and meta-analysis. *BMJ Evidence-Based Medicine, 28*(4), 228–240. https://doi.org/10.1136/bmjebm-2022-112135

World Health Organization. (2023). *Headache disorders*. https://www.who.int/news-room/fact-sheets/detail/headache-disorders

Xu, S., Yu, L., Luo, X., Wang, M., Chen, G., Zhang, Q., Liu, W., Zhou, Z., Song, J., Jing, H., Huang, G., Liang, F., Wang, H., & Wang, W. (2020). Manual acupuncture versus sham acupuncture and usual care for prophylaxis of episodic migraine without aura: Multicentre, randomised clinical trial. *BMJ, 368*, Article m697. https://doi.org/10.1136/bmj.m697

Yang, C., Wu, M., Luo, Q., Xu, G., Huang, L., Tian, H., Sun, M., & Liang, F. (2024). Acupuncture for migraine: A systematic review and meta-regression of randomized controlled trials. *Complementary Therapies in Medicine, 86*, Article 103076. https://doi.org/10.1016/j.ctim.2024.103076

Zhang, N., Houle, T., Hindiyeh, N., & Aurora, S. K. (2020). Systematic review: Acupuncture vs standard pharmacological therapy for migraine prevention. *Headache, 60*(2), 309–317. https://doi.org/10.1111/head.13723

Zhao, L., Chen, J., Li, Y., Sun, X., Chang, X., Zheng, H., Gong, B., Huang, Y., Yang, M., Wu, X., Li, X., & Liang, F. (2017). The long-term effect of acupuncture for migraine prophylaxis: A randomized clinical trial. *JAMA Internal Medicine, 177*(4), 508–515. https://doi.org/10.1001/jamainternmed.2016.9378