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Leah Karpelson



Leah Karpelson, DAc, LicAc, DiplAc is a licensed acupuncturist and owner of Point and Balance Acupuncture in Needham and Medfield, Massachusetts. She holds a Master of Acupuncture and Chinese Medicine from the New England School of Acupuncture and a Doctorate of Acupuncture from Pacific College of Oriental Medicine. With 15 years of clinical experience, she specializes in Tung's acupuncture, women's hormonal health, and fertility. She practices at the intersection of classical Chinese medicine and contemporary clinical care.

Tung's Acupuncture for the Treatment of Pediatric Migraine With Liver Blood Deficiency: A Case Report

By Leah Karpelson, DAc, LAc, DiplAc

Abstract

Tung's acupuncture, a distal needling system guided here by traditional Chinese medicine (TCM) pattern differentiation, was used to treat a 15-year-old female adolescent with a 2-year history of near-daily migraines. The patient presented with 5–6 migraines per week characterized by dull, aching head pain, dizziness, eye pain, and visual symptoms. She had previously tried pharmacological migraine treatment without satisfactory benefit; no medications or supplements were in use at the time of acupuncture intake. Tongue examination was within normal limits; pulse was wiry. The TCM pattern diagnosis was Liver blood deficiency. Ten treatments were administered over 8 weeks using 77.27 (Waisanguan), 22.05 (Linggu), and SI3 (Houxi), needled bilaterally. Migraine frequency declined from 5–6 per week at baseline to zero at 7 weeks (Visit 9) and remained at zero through a maintenance visit 1 week after the final treatment. Pediatric Migraine Disability Assessment (PedMIDAS) scores decreased from 50 (Grade III, moderate disability) to 30 (Grade II, mild disability), a conservative estimate because of overlapping assessment windows. Nerivio remote electrical neuromodulation (REN) device app logs recorded about one activation day per week through the fifth week of treatment and none in the 32 subsequent days. This case suggests that Tung's acupuncture may help prevent migraine in children and adolescents. It also suggests that REN device app logs, which record each day the device is used to treat an attack, can serve as an objective measure of how often a patient needs acute treatment.

Keywords: Tung's acupuncture, pediatric migraine, Liver blood deficiency, neuromodulation, PedMIDAS, case report

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Introduction

Migraine affects approximately 11% of children and adolescents (Onofri et al., 2023) and is associated with significant disability, including impaired school functioning and reduced quality of life (Powers et al., 2003). Pharmacological options in pediatric populations are limited by tolerability and safety concerns (Powers et al., 2017), and many families seek integrative approaches. Acupuncture has demonstrated efficacy for the prevention of episodic migraine in adult populations (Linde et al., 2016). Evidence in children is emerging. Two narrative reviews describe acupuncture as safe and effective for headache in children and adolescents, with reductions in headache frequency and intensity (Bonemazzi et al., 2023; Doll et al., 2019).

Tung's acupuncture, once a closely guarded family tradition, is a complete system with its own channels, points, and needling techniques. Its approximately 740 points are numbered by body region; some coincide with points on the 14 regular channels but have different indications (Cruz et al., 2019). A treatment usually needles only a handful of points at a distance from the affected area (Lee, 1998). Points are chosen by image, channel, and tissue correspondence (McCann & Ross, 2018). Distal points can reach the head along the channel sinew pathways. In the Ling Shu, the sinews of the yang channels run from the hands and feet up into the head and face (Unschuld, 2016). Clinical reports describe its use for migraine, combined with temple three-needle acupuncture (Wang, 2012), and for tinnitus associated with cervical spondylosis (Zhang et al., 2013). To the author's knowledge, no published case reports document Tung's acupuncture specifically for pediatric migraine.

The Su Wen states that the Liver stores blood and that the eyes can see when the Liver receives blood (Unschuld & Tessenow, 2011). Headache of the deficient type arises when too little qi or blood reaches the head. The pain is dull and of mild to moderate intensity, and it comes with mental and physical fatigue (Maclean & Lyttleton, 2010).

This case report describes an 8-week course of Tung's acupuncture, guided by traditional Chinese medicine (TCM) pattern differentiation, in a 15-year-old female adolescent with near-daily migraines, with concurrent monitoring of her use of a Nerivio remote electrical neuromodulation (REN) device (Theranica). The device is a wearable controlled through a smartphone app (Nierenburg & Stark-Inbar, 2022). The U.S. Food and Drug Administration

cleared it for the acute and preventive treatment of migraine in patients 12 years and older (Monteith et al., 2023). It stimulates peripheral nerves in the upper arm to induce conditioned pain modulation (Hershey et al., 2021).

Case Description

Patient Demographics

A 15-year-old female adolescent, currently enrolled in school, presented to Point and Balance Acupuncture in January 2026.

Chief Complaint

The patient reported near-daily migraines occurring 5–6 times per week for 2 years, with no pain-free weeks during that period.

History of Present Illness

Migraines were characterized by dull, aching head pain, dizziness, eye pain, and visual symptoms including spots and floaters. Rest provided symptomatic relief. No identifiable triggers were reported. The patient had been evaluated by a neurologist and was using a Nerivio REN device prescribed by that provider. The neurologist's formal diagnosis, International Classification of Headache Disorders (ICHD) classification, aura status, and any imaging results were not reported at intake and are not available for inclusion in this report. The patient had previously tried pharmacological migraine treatment without satisfactory benefit; pharmacological treatment was discontinued prior to acupuncture intake. No family history of migraine was reported. The patient was not using any medications or supplements during the acupuncture course. No prior acupuncture had been performed.

Past Medical History

Medical history was otherwise unremarkable. Menstrual history was within normal limits.

Diagnostic Theory and Diagnosis

Physical Examination Findings

Tongue examination at intake was normal. Pulse was wiry, consistent with Liver involvement.

TCM Pattern Differentiation

The presenting symptom complex (dull, aching head pain; dizziness; visual symptoms including spots and floaters; and relief with rest) indicated a deficiency rather than excess pattern. In TCM, the Liver stores blood and opens to the eyes; blood deficiency fails to nourish the sensory organs and head, producing the presenting symptom complex. The quality of pain (dull and aching rather than sharp or throbbing), combined with the visual phenomena, the wiry pulse, and the patient's adolescent developmental context (a time of considerable blood demand), supported this differentiation.

TCM Diagnosis

The TCM diagnosis was Liver blood deficiency. An excess pattern (Liver yang rising, Liver fire, or wind-cold invasion) was considered and excluded based on the dull rather than throbbing or severe pain, the absence of heat signs, and relief with rest rather than aggravation. A combined deficiency-excess presentation was not identified.

Treatment

Therapeutic Intervention

Three Tung's acupuncture points were selected for their traditional indications in head and neurological conditions and their influence on the Liver-Kidney axis. Point 77.27 (Waisanguan), located on the lateral lower leg, is indicated for head and neck disorders and is understood to strengthen qi and blood. Point 22.05 (Linggu), located on the dorsum of the hand, is a master point for head and cervical conditions with Kidney channel influence, reinforcing the Liver-Kidney relationship fundamental to blood production. SI3 (Houxi), the confluent point of the Governing Vessel (GV), opens the GV, benefits the head and sensory organs, and addresses insufficient circulation to the head.
All points were needled bilaterally using Nano Tech sterile disposable acupuncture needles (0.20 × 15 mm). Insertion depths were approximately 0.5–1.0 cun for 77.27 (Waisanguan) and 22.05 (Linggu), and 0.3–0.5 cun for SI3. No needle stimulation was performed; needles were retained for 30 minutes. De qi was not elicited. No electroacupuncture, moxibustion, or adjunctive modalities were employed.

Treatment Schedule

Ten treatments were administered over 8 weeks beginning in January 2026, with frequency decreasing as clinical improvement was observed. Counting the first treatment as Day 0, treatments took place on Days 0, 2, 7, 13, 21, 28, 34, 42, 49, and 56. A maintenance visit was conducted on Day 63, 1 week after the final treatment.

Changes in Treatment Strategy

No changes were made to point selection over the course of treatment. Visit frequency was reduced from twice weekly in the first week to approximately once weekly thereafter as the patient's migraine frequency declined.

Practitioner Background

Treatment was provided by a licensed acupuncturist (DAc, LicAc, DiplAc) with 15 years of clinical experience specializing in Tung's acupuncture and women's hormonal health. The practitioner holds a Master of Acupuncture and Chinese Medicine from the New England School of Acupuncture (2011) and a Doctorate of Acupuncture from Pacific College of Oriental Medicine (2017).

Outcomes

Clinician- and Patient-Assessed Outcomes

Migraine frequency. Migraine frequency was tracked via patient self-report at each visit. Table 1 presents visit-by-visit migraine counts alongside REN device activation data. Frequency declined from a baseline of 5–6 migraines per week to zero at Visit 9 (Day 49). At Visit 9, the patient reported no migraines for the preceding week, her first migraine-free week since symptom onset. Sustained response was confirmed at Visit 10 (Day 56) and at the maintenance visit (Day 63), for 3 consecutive migraine-free weeks. The patient also reported progressively reduced severity beginning at Visit 4 and no school absences owing to migraine from Visit 6 onward.

Visit	Day	Migraines Reported	Notes	Nerivio Activation Days (App Log)	Days Since Last Visit
1	0	5–6/week (baseline)	Presenting frequency; patient-reported	Pre-treatment logs unavailable	–
2	2	1		Day −4	2
3	7	3		Day 3	5
4	13	3	Less severe	Day 10	6
5	21	4–5	Lowered severity and sharpness	Day 17	8
6	28	3–4	No school missed	Day 23	7
7	34	1–2	Last Nerivio use Day 31	Day 31	6
8	42	1–2	Not severe; device not used this week	0	8
9	49	0	First visit with zero migraines reported	0	7
10	56	0		0	7
11*	63	0	Maintenance visit; confirmed sustained migraine-free week	0	7

Table 1. *Visit-by-visit migraine frequency and Nerivio remote electrical neuromodulation (REN) device activation days. Migraine frequency is patient-reported. Nerivio activation days are derived from objective app logs for the treatment period; pre-treatment activation frequency was patient-reported as multiple times daily (app logs not available for the pre-treatment period). *Visit 11 was a maintenance visit. Days since last visit reflects the interval between consecutive appointments.*

Migraine disability. The Pediatric Migraine Disability Assessment (PedMIDAS; Hershey et al., 2001), which covers the preceding 3 months, was administered retrospectively for two periods (Table 2). For the baseline period (the 3 months ending the day after the first treatment), the score was 50 (Grade III, moderate disability; Hershey et al., 2004). For the treatment period, December 2025 through February 2026, the score was 30 (Grade II, mild disability). The assessment windows overlap by about 6 weeks (the second window opened before treatment began), meaning the second score of 30 is a conservative estimate; the true reduction in disability during treatment is likely greater than this comparison suggests.

Assessment Period	PedMIDAS Score	Disability Grade	Notes
Day −91 to Day 1 (Baseline)	50	Grade III (moderate)	Pre-treatment
Day −40 to Day 49 (Treatment Period)	30†	Grade II (mild)	About 6 weeks of pre-treatment overlap (Day −40 to Day −1)

Table 2. *PedMIDAS scores at baseline and during treatment period. †Q2 window overlaps with Q1 by approximately one month (December 2025, pre-treatment); a score of 30 is a conservative estimate. PedMIDAS = Pediatric Migraine Disability Assessment.*

REN device activation frequency. The patient's family confirmed REN device activation days during the treatment period via objective app logs. The logs show six activation days: one 4 days before the first treatment (Day −4) and five during treatment (Days 3, 10, 17, 23, and 31), at 6- to 8-day intervals. No activations were logged after Day 31 through the end of the treatment course and the maintenance visit. The patient reported pretreatment activation frequency as multiple times daily; earlier app logs for the pretreatment period were not available. The app logs record activation days only and do not indicate the number of activations per day.

Intervention Adherence and Tolerability

The patient completed all 10 treatment sessions and attended the maintenance visit. No interruptions to the treatment course occurred. The intervention was well tolerated throughout.

Adverse and Unanticipated Events

No adverse events were reported or observed during treatment.

Discussion

This case documents clinically meaningful improvement in a 15-year-old with near-daily migraines following 10 treatments of Tung's acupuncture over 8 weeks. The patient reported no migraines at Visit 9, her first migraine-free week since symptom onset, with sustained response confirmed at Visit 10 and at the maintenance visit 1 week after the final treatment. This outcome exceeded the reduction of at least 50% in migraine frequency that defined response in the Cochrane review of acupuncture for migraine prevention (Linde et al., 2016).

Liver blood deficiency gives a coherent TCM framework for the presenting symptom complex. The Liver stores blood and opens to the eyes; deficiency produces dull head pain, dizziness, and visual symptoms relieved by rest. The wiry pulse at intake further supported Liver involvement. Points 22.05 (Linggu), 77.27 (Waisanguan), and SI3 address head and neurological conditions within Tung's system while supporting blood production and the Liver-Kidney axis. The distal needling approach was well tolerated by this patient and does not require local head needling, which may be poorly tolerated in pediatric patients.

The patient's REN device gave a second way to measure outcomes. Its app logs showed about one day of use per week through Day 31 and no use in the 32 days that followed. Over the same period, the patient reported that her migraines fell from one or two per week to none. She may have stopped using the device because fewer migraines became severe enough to need treatment. This would fit a preventive effect from acupuncture. The logs record days of use rather than each use, but they provide objective documentation that supports the patient's own reports.

The relationship between the REN device and acupuncture treatment warrants brief consideration from a TCM perspective. The device operates through conditioned pain modulation, delivering remote electrical stimulation to the upper arm to activate descending pain inhibitory pathways. From a TCM standpoint, this peripheral electrical stimulation may produce a mild movement of qi through the channel network, not dissimilar in principle to the mechano-stimulation of needling, though without the directional intention or point-specific influence of acupuncture.

It is possible that during the early weeks of treatment, when acupuncture was actively restoring the smooth flow of qi and nourishing blood, the device's stimulation served as a complementary rather than competing influence, providing acute relief at the channel surface while acupuncture addressed the underlying deficiency. As the root pattern resolved and the patient's own qi became sufficient to maintain smooth circulation to the head, the need for external stimulation may have diminished. Whether the two modalities actively synergized or simply coexisted without interference cannot be determined from a single case and warrants prospective investigation.

If migraines recur, the author recommends initiating a course of two to three treatments before resuming a full treatment series.

Strengths and Limitations

Strengths of this case include the use of a validated disability measure (PedMIDAS), objective REN device app log data alongside self-reported migraine frequency, TCM pattern differentiation guiding point selection, and reporting that follows the Standards for Reporting Interventions in Clinical Trials of Acupuncture (STRICTA; MacPherson et al., 2010) and the CAse REport (CARE) guidelines (Gagnier et al., 2013). Limitations include the single-subject retrospective design, which precludes causal inference; the retrospective administration of the PedMIDAS, which is subject to recall error, and its overlapping assessment windows, which render the disability comparison conservative; the absence of neurologist records including formal ICHD classification, aura status, and imaging results; the dependence on patient self-report for migraine frequency; the unavailability of earlier pretreatment REN device app logs; the absence of formal tongue documentation beyond normal limits; the concurrent use of the REN device, which is cleared for preventive as well as acute treatment of migraine (Monteith et al., 2023); and follow-up limited to 1 week after the final treatment.

Directions for Further Investigation

Prospective case series and controlled trials investigating Tung's acupuncture for pediatric migraine are warranted. Future studies should consider including objective REN device activation logs as a secondary outcome measure alongside validated patient-reported instruments. They should include standardized biomedical diagnostic information, including ICHD classification and aura status.

Patient Perspective

The patient reported satisfaction with the treatment course and noted improved daily functioning and school attendance over the course of treatment. She expressed relief at achieving a migraine-free week for the first time in 2 years.

Conclusion

A 15-year-old female adolescent with near-daily migraines reported no migraines at Visit 9, with sustained response confirmed at Visit 10 and at a maintenance visit 1 week after the final treatment, following a 10-treatment, 8-week course of Tung's acupuncture guided by TCM pattern differentiation of Liver blood deficiency. PedMIDAS scores decreased from 50 (moderate

disability) to 30 (mild disability), a conservative estimate given overlapping assessment windows. Logged REN device activation days fell from about one per week to none after the fifth week of treatment. These findings support further investigation of Tung's acupuncture as a preventive intervention for pediatric migraine.

Informed Consent

The patient's parent/guardian provided written informed consent for publication of this case report. Written assent was obtained from the patient. Patient details have been de-identified to protect confidentiality. This case report did not require Institutional Review Board approval, as it involves a single de-identified patient case from routine clinical practice and was conducted in accordance with the ethical principles of the Declaration of Helsinki.

Statement of Safety

No adverse events or safety concerns were identified during or after treatment. All needles used were sterile, single-use, and disposed of in accordance with standard sharps disposal protocols.

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References

Bonemazzi, I., Nosadini, M., Pelizza, M. F., Paolin, C., Cavaliere, E., Sartori, S., & Toldo, I. (2023). Treatment of frequent or chronic primary headaches in children and adolescents: Focus on acupuncture. *Children, 10*(10), Article 1626. https://doi.org/10.3390/children10101626

Cruz, J., Carrington, L., & Hong, H. (2019). A feasibility study on treatment of uterine fibroids with Tung's acupuncture. *Medical Acupuncture, 31*(6), 384–391. https://doi.org/10.1089/acu.2019.1385

Doll, E., Threlkeld, B., Graff, D., Clemons, R., Mittel, O., Sowell, M. K., & McDonald, M. (2019). Acupuncture in adult and pediatric headache: A narrative review. *Neuropediatrics, 50*(6), 346–352. https://doi.org/10.1055/s-0039-1695785

Gagnier, J. J., Kienle, G., Altman, D. G., Moher, D., Sox, H., Riley, D., & CARE Group. (2013). The CARE guidelines: Consensus-based clinical case reporting guideline development. *Journal of Medical Case Reports, 7*, Article 223. https://doi.org/10.1186/1752-1947-7-223

Hershey, A. D., Lin, T., Gruper, Y., Harris, D., Ironi, A., Berk, T., Szperka, C. L., & Berenson, F. (2021). Remote electrical neuromodulation for acute treatment of migraine in adolescents. *Headache: The Journal of Head and Face Pain, 61*(2), 310–317. https://doi.org/10.1111/head.14042

Hershey, A. D., Powers, S. W., Vockell, A. L., LeCates, S., Kabbouche, M. A., & Maynard, M. K. (2001). PedMIDAS: Development of a questionnaire to assess disability of migraines in children. *Neurology, 57*(11), 2034–2039. https://doi.org/10.1212/wnl.57.11.2034

Hershey, A. D., Powers, S. W., Vockell, A. L. B., LeCates, S. L., Segers, A., & Kabbouche, M. A. (2004). Development of a patient-based grading scale for PedMIDAS. *Cephalalgia, 24*(10), 844–849. https://doi.org/10.1111/j.1468-2982.2004.00757.x

Lee, M. (1998). *Master Tong's acupuncture: An ancient alternative style in modern clinical practice* (2nd ed.). Blue Poppy Press.

Linde, K., Allais, G., Brinkhaus, B., Fei, Y., Mehring, M., Vertosick, E. A., Vickers, A., & White, A. R. (2016). Acupuncture for the prevention of episodic migraine.

Cochrane Database of Systematic Reviews, 2016(6), Article CD001218. https://doi.org/10.1002/14651858.CD001218.pub3

Maclean, W., & Lyttleton, J. (2010). *Clinical handbook of internal medicine: The treatment of disease with traditional Chinese medicine: Vol. 3. Qi, blood, fluid, channels*. Pangolin Press.

MacPherson, H., Altman, D. G., Hammerschlag, R., Li, Y., Wu, T., White, A., Moher, D., & STRICTA Revision Group. (2010). Revised STandards for Reporting Interventions in Clinical Trials of Acupuncture (STRICTA): Extending the CONSORT statement. *PLoS Medicine, 7*(6), Article e1000261. https://doi.org/10.1371/journal.pmed.1000261

McCann, H., & Ross, H.-G. (2018). *Practical atlas of Tung's acupuncture* (6th ed.). Verlag Müller & Steinicke.

Monteith, T. S., Stark-Inbar, A., Shmuely, S., Harris, D., Garas, S., Ironi, A., Kalika, P., & Irwin, S. L. (2023). Remote electrical neuromodulation (REN) wearable device for adolescents with migraine: A real-world study of high-frequency abortive treatment suggests preventive effects. *Frontiers in Pain Research, 4*, Article 1247313. https://doi.org/10.3389/fpain.2023.1247313

Nierenburg, H., & Stark-Inbar, A. (2022). Nerivio® remote electrical neuromodulation for acute treatment of chronic migraine. *Pain Management, 12*(3), 267–281. https://doi.org/10.2217/pmt-2021-0038

Onofri, A., Pensato, U., Rosignoli, C., Wells-Gatnik, W., Stanyer, E., Ornello, R., Chen, H. Z., De Santis, F., Torrente, A., Mikulenka, P., Monte, G., Marschollek, K., Waliszewska-Prosół, M., Wiels, W., Boucherie, D. M., Onan, D., Farham, F., Al-Hassany, L., Sacco, S., & European Headache Federation School of Advanced Studies. (2023). Primary headache epidemiology in children and adolescents: A systematic review and meta-analysis. *The Journal of Headache and Pain, 24*(1), Article 8. https://doi.org/10.1186/s10194-023-01541-0

Powers, S. W., Coffey, C. S., Chamberlin, L. A., Ecklund, D. J., Klingner, E. A., Yankey, J. W., Korbee, L. L., Porter, L. L., Hershey, A. D., & CHAMP Investigators. (2017). Trial of amitriptyline, topiramate, and placebo for pediatric migraine. *The New England Journal of Medicine, 376*(2), 115–124. https://doi.org/10.1056/NEJMoa1610384

Powers, S. W., Patton, S. R., Hommel, K. A., & Hershey, A. D. (2003). Quality of life in childhood migraines: Clinical impact and comparison to other chronic illnesses. *Pediatrics, 112*(1), e1–e5. https://doi.org/10.1542/peds.112.1.e1

Unschuld, P. U. (2016). *Huang Di nei jing ling shu: The ancient classic on needle therapy.* University of California Press.

Unschuld, P. U., & Tessenow, H. (2011). *Huang Di nei jing su wen: An annotated translation of Huang Di's inner classic – Basic questions* (Vols. 1–2). University of California Press.

Wang, L. (2012). Temple-three-needle combined with Dong's extraordinary point electric acupuncture therapy in treating 36 cases of migraine. *International Journal of Clinical Acupuncture, 21*(4), 175–177.

Zhang, S.-H., Wu, Y.-C., & Chen, J. (2013). Clinical observation on Dong's extraordinary points for tinnitus due to cervical spondylosis. *Journal of Acupuncture and Tuina Science, 11*(5), 300–302. https://doi.org/10.1007/s11726-013-0714-1