Table des matières

Neuropathic Pain

Douleurs neuropathiques : évaluation de l'acupuncture

1. Systematic Reviews and Meta-Analysis

1.1. Generic Acupuncture

1.1.1. Ge 2025 (spinal cord injury)

Ge SY, Hu MM, Li KP, Wu CQ, Xu GH, Dong L. Comparative efficacy of common rehabilitation treatments for patients with neuropathic pain after spinal cord injury: a systematic review and network meta-analysis. Neurol Sci. 2025 Aug;46(8):3547-3557. https://doi.org/10.1007/s10072-025-08120-y

Background	Neuropathic pain is a prevalent complication following spinal cord injury, imposing severe physical and psychological burdens on affected individuals. It often hinders complete physical and mental recovery. Despite numerous rehabilitation interventions being explored and implemented, the optimal treatment strategy for neuropathic pain post-spinal cord injury remains a subject of ongoing debate. To address this uncertainty, a comprehensive network meta-analysis is imperative. This analysis aims to compare the effectiveness of various rehabilitation interventions and guide clinical staff in selecting the most efficacious treatment to alleviate patients' physical and psychological distress.
Methods	Embase, PubMed, Scopus, Web of Science, CNKI, Wan Fang, Vip Journal Integration Platform and Sinomed were searched from the establishment of the database to 13 June 2024. Employing ROB 2.0 and Stata 18.0 for literature selection, quality evaluation and meta-analysis, the effectiveness of various rehabilitation interventions was assessed. These interventions were evaluated using network-level and cumulative level surface under the cumulative ranking area analysis.
Results	The review included 31 studies involving 1820 patients. According to the cumulative ranking area ranking of 17 therapies, the best three interventions for reducing pain are repetitive transcranial magnetic stimulation, **acupuncture**, and intermittent theta burst stimulation.
Conclusions	The intermittent theta burst stimulation treatment demonstrated superior efficacy in managing pain after spinal cord injury, closely followed by **acupuncture** and repetitive transcranial magnetic stimulation. This analysis provides a solid foundation for clinical staff to select the appropriate therapeutic approaches.

1.1.2. Feng 2023 ☆

Feng Z, Cui S, Yang H, Wang Y, Zhou X, Wong J, Lai L, Yang Z, Huang B, Zheng H, Xu M. Acupuncture for neuropathic pain: A meta-analysis of randomized control trials. Front Neurol. 2023 Jan 9;13:1076993. https://doi.org/10.3389/fneur.2022.1076993.

Background	Neuropathic pain (NP) is expected to increase due to the high risk of global population aging. Acupuncture has a definite clinical effect on NP. Therefore, a systematic review and meta-analysis were conducted to evaluate the effect on pain intensity and safety of acupuncture in patients with NP.
Methods	An encompassing search of specific authoritative databases in English, from their inception to 2022, was performed. The databases were as follows: Scopus, Ovid EMBASE, Ovid Cochrane Database of Systematic Reviews, Ovid Cochrane Central Register of Controlled Trials, Ovid MEDLINE(R) and Epub Ahead of Print, In-Process and Other Non-Indexed Citations, and Daily. All the randomized controlled trials regarding the acupuncture treatment of NP will be included. Methodological quality assessment of the included trials was assessed based on the risk of bias from the Cochrane handbook. A meta-analysis was performed for the main outcomes. In addition, sensitivity analysis, subgroup analysis, and funnel plot were also carried out.
Results	A total of **16 studies with 1,021 patients** with NP were evaluated in a systematic review. According to the results of the overall meta-analysis in eight RCTs with 338 participants, the acupuncture group was better than the control group in improving changes in pain intensity (SMD -0.59, 95% CI: -0.95 to -0.23, P = 0.001). In subgroup analysis, five trials indicated that acupuncture was more effective in improving changes in pain intensity than sham acupuncture (SMD -0.54, 95% CI: -0.95 to -0.13, P = 0.01), two trials evaluated the effect on changes in pain intensity in the comparison of acupuncture and conventional treatments, no significant difference existed (SMD -0.61, 95% CI: -1.83 to 0.61, P = 0.33), and one trial compared acupuncture with blank control evaluating the effect of changes in pain intensity with a significant difference. Eleven studies mentioned the safety conditions and acupuncture-induced AEs were mild and reversible. Both the sensitivity analysis and funnel plot analysis showed that the meta-analysis was stable and irreversible without publication bias. The GRADE was rated as “very low.”
Conclusion	The acupuncture group had higher effectiveness than sham intervention or blank control for changes in pain intensity, but there is no significant difference between acupuncture and conventional treatments in treating NP. The acupuncture-induced adverse events were mild and reversible. However, the interpretation of our results should be performed cautiously due to the low methodological quality of selected publications.
GRADE	⊕⊖⊖⊖ Very low

1.1.3. He 2022 (Spinal Cord Injury) ☆

He K, Hu R, Huang Y, Qiu B, Chen Q, Ma R. Effects of Acupuncture on Neuropathic Pain Induced by Spinal Cord Injury: A Systematic Review and Meta-Analysis. Evid Based Complement Alternat Med. 2022 Aug 19;2022:6297484. https://doi.org/10.1155/2022/6297484.

Introduction	Neuropathic pain is a commonly seen symptom and one of the most intractable comorbidities following spinal cord injury (SCI). Acupuncture has been widely used for neuropathic pain after SCI in clinical settings. There is no systematic review or meta-analysis evaluating the efficacy of acupuncture in the treatment of SCI-induced neuropathic pain. Thus, this study aimed to conduct a systematic review and meta-analysis to assess the efficacy of acupuncture on SCI-induced neuropathic pain.

Methods	Seven databases were comprehensively searched, including PubMed, the Cochrane Library, the Web of Science, the China National Knowledge Infrastructure (CNKI), the Chinese Biomedical Literature Service System (SinoMed), the Wanfang Database, and the Chinese Scientific Journals Database (VIP) from their inception to 30 September 2021. Two independent reviewers evaluated the eligibility of the data retrieved based on the pre-established eligibility criteria and assessed the methodological quality of the included studies using the Cochrane Risk of Bias Tool. The outcome indexes in this study included the visual analogue scale, the numeric rating scale, the present pain intensity, and the pain region index. Sensitivity and subgroup analyses were also performed to specifically evaluate the intervention effects. In addition, publication bias was analyzed.
Results	**Six randomized controlled trials** (145 participants in the experimental groups and 141 participants in the control groups) were identified that evaluated the application of acupuncture for neuropathic pain after SCI and were included in this study. The results of our study revealed that acupuncture had a positive effect on the pain severity (standardized mean difference (SMD): -1.40, 95% confidence interval (CI): -2.23; -0.57), the present pain intensity (MD = -0.61, 95% CIs = -0.98; -0.23), and the pain region index (MD = -3.04, 95% CI = -3.98; -2.11). In addition, sensitivity analyses showed that these results were robust and stable. Subgroup analyses indicated that electroacupuncture (EA) had better effects on SCI-induced neuropathic pain. However, a publication bias was observed.
Conclusion	Available evidence appears to suggest that acupuncture may have a role in SCI-induced neuropathic pain management, but this remains to be determined.

1.1.4. Zhao 2022

Zhao W, Huang H, Liu K, Wang S, Lin S, Long W, Li L, Zeng J, Lin G. Acupuncture and Moxibustion for Peripheral Neuropathic Pain: A Frequentist Network Meta-Analysis and Cost-Effectiveness Evaluation. Evid Based Complement Alternat Med. 2022 Mar 16;2022:6886465. https://doi.org/10.1155/2022/6886465

Purpose	Acupuncture and moxibustion techniques have been increasingly used to treat peripheral neuropathic pain (PNP). However, there is a paucity of comparative information and cost-effectiveness assessment for techniques on PNP management.
Patients and Methods	Randomized controlled trials studying the acupuncture or moxibustion treatments on PNP were identified from electronic databases. The quality of the included studies and the potential risk of bias was evaluated using the ROB 2.0 assessment tool. The primary outcome was at least 20% pain relief. The treatment effects were pooled through a frequentist-based network meta approach. Subsequently, the cost-effectiveness measured by incremental cost per additional responder (ICPR) was calculated.
Results	One three-arm trial and 15 two-arm trials comprising 1308 participants that satisfy the eligibility criteria were identified. Among the included studies, 12.5% were at low risk of bias, 68.75% had some concerns about the risk of bias, and 18.75% were at high risk of bias. The major sources of bias originated from the randomization processes of the studies. The patients were assigned to seven different acupuncture or moxibustion interventions and two pharmaceutical treatments. Except for acupoint injection, all the included acupuncture and moxibustion techniques showed superior improvements in PNP and were more cost-effective as compared to pharmaceutical treatments. Warm needling, fire needling, and moxibustion were the most effective treatments. Fire needling showed the lowest ICPR relative to the nonsteroidal anti-inflammatory drugs in the cost-effectiveness analysis of direct and indirect costs.

Conclusion	Acupuncture and moxibustion techniques are beneficial and cost-effective approaches for easing PNP and hence can be considered for PNP management.

1.1.5. Falk 2021 Ø

Falk J, Thomas B, Kirkwood J, Korownyk CS, Lindblad AJ, Ton J, Moe S, Allan GM, McCormack J, Garrison S, Dugré N, Chan K, Kolber MR, Train A, Froentjes L, Sept L, Wollin M, Craig R, Perry D. PEER systematic review of randomized controlled trials: Management of chronic neuropathic pain in primary care. . Can Fam Physician. 2021;67(5). [219202]. doi

Objective	To determine the proportion of patients with neuropathic pain who achieve a clinically meaningful improvement in their pain with the use of different pharmacologic and nonpharmacologic treatments.
Data sources	MEDLINE, EMBASE, the Cochrane Library, and a gray literature search. Study selection: Randomized controlled trials that reported a responder analysis of adults with neuropathic pain-specifically diabetic neuropathy, postherpetic neuralgia, or trigeminal neuralgia-treated with any of the following 8 treatments: exercise, acupuncture, serotonin-norepinephrine reuptake inhibitors (SNRIs), tricyclic antidepressants (TCAs), topical rubefacients, opioids, anticonvulsant medications, and topical lidocaine.
Synthesis	A total of 67 randomized controlled trials were included. There was moderate certainty of evidence that anticonvulsant medications (risk ratio of 1.54; 95% CI 1.45 to 1.63; number needed to treat [NNT] of 7) and SNRIs (risk ratio of 1.45; 95% CI 1.33 to 1.59; NNT = 7) might provide a clinically meaningful benefit to patients with neuropathic pain. There was low certainty of evidence for a clinically meaningful benefit for rubefacients (ie, capsaicin; NNT = 7) and opioids (NNT = 8), and very low certainty of evidence for TCAs. Very low-quality evidence demonstrated that **acupuncture** was ineffective. All drug classes, except TCAs, had a greater likelihood of deriving a clinically meaningful benefit than having withdrawals due to adverse events (number needed to harm between 12 and 15). No trials met the inclusion criteria for exercise or lidocaine, nor were any trials identified for trigeminal neuralgia.
Conclusion	There is moderate certainty of evidence that anticonvulsant medications and SNRIs provide a clinically meaningful reduction in pain in those with neuropathic pain, with lower certainty of evidence for rubefacients and opioids, and very low certainty of evidence for TCAs. Owing to low-quality evidence for many interventions, future high-quality trials that report responder analyses will be important to strengthen understanding of the relative benefits and harms of treatments in patients with neuropathic pain.

1.1.6. Ju 2017 Ø

Ju ZY, Wang K, Cui HS, Yao Y, Liu SM, Zhou J, Chen TY, Xia J. Acupuncture for neuropathic pain in adults. Cochrane Database Syst Rev. 2017. [93184].

Background	Neuropathic pain may be caused by nerve damage and is often followed by changes to the central nervous system. Uncertainty remains regarding the effectiveness and safety of acupuncture treatments for neuropathic pain, despite a number of clinical trials being undertaken.
Objectives	To assess the analgesic efficacy and adverse events of acupuncture treatments for chronic neuropathic pain in adults.

Methods	SEARCH METHODS: We searched CENTRAL, MEDLINE, Embase, four Chinese databases, ClinicalTrials.gov and World Health Organization (WHO) International Clinical Trials Registry Platform (ICTRP) on 14 February 2017. We also cross checked the reference lists of included studies. SELECTION CRITERIA: Randomised controlled trials (RCTs) with treatment duration of eight weeks or longer comparing acupuncture (either given alone or in combination with other therapies) with sham acupuncture, other active therapies, or treatment as usual, for neuropathic pain in adults. We searched for studies of acupuncture based on needle insertion and stimulation of somatic tissues for therapeutic purposes, and we excluded other methods of stimulating acupuncture points without needle insertion. We searched for studies of manual acupuncture, electroacupuncture or other acupuncture techniques used in clinical practice (such as warm needling, fire needling, etc). DATA COLLECTION AND ANALYSIS: We used the standard methodological procedures expected by Cochrane. The primary outcomes were pain intensity and pain relief. The secondary outcomes were any pain-related outcome indicating some improvement, withdrawals, participants experiencing any adverse event, serious adverse events and quality of life. For dichotomous outcomes, we calculated risk ratio (RR) with 95% confidence intervals (CI), and for continuous outcomes we calculated the mean difference (MD) with 95% CI. We also calculated number needed to treat for an additional beneficial outcome (NNTB) where possible. We combined all data using a random-effects model and assessed the quality of evidence using GRADE to generate 'Summary of findings' tables.

Main Results	We included **six studies involving 462 participants** with chronic peripheral neuropathic pain (442 completers (251 male), mean ages 52 to 63 years). The included studies recruited 403 participants from China and 59 from the UK. Most studies included a small sample size (fewer than 50 participants per treatment arm) and all studies were at high risk of bias for blinding of participants and personnel. Most studies had unclear risk of bias for sequence generation (four out of six studies), allocation concealment (five out of six) and selective reporting (all included studies). All studies investigated manual acupuncture, and we did not identify any study comparing acupuncture with treatment as usual, nor any study investigating other acupuncture techniques (such as electroacupuncture, warm needling, fire needling).One study compared acupuncture with sham acupuncture. We are uncertain if there is any difference between the two interventions on reducing pain intensity (n = 45; MD -0.4, 95% CI -1.83 to 1.03, very low-quality evidence), and neither group achieved 'no worse than mild pain' (visual analogue scale (VAS, 0-10) average score was 5.8 and 6.2 respectively in the acupuncture and sham acupuncture groups, where 0 = no pain). There was limited data on quality of life, which showed no clear difference between groups. Evidence was not available on pain relief, adverse events or other pre-defined secondary outcomes for this comparison. Three studies compared acupuncture alone versus other therapies (mecobalamin combined with nimodipine, and inositol). Acupuncture may reduce the risk of 'no clinical response' to pain than other therapies (n = 209; RR 0.25, 95% CI 0.12 to 0.51), however, evidence was not available for pain intensity, pain relief, adverse events or any of the other secondary outcomes. Two studies compared acupuncture combined with other active therapies (mecobalamin, and Xiaoke bitong capsule) versus other active therapies used alone. We found that the acupuncture combination group had a lower VAS score for pain intensity (n = 104; MD -1.02, 95% CI -1.09 to -0.95) and improved quality of life (n = 104; MD -2.19, 95% CI -2.39 to -1.99), than those receiving other therapy alone. However, the average VAS score of the acupuncture and control groups was 3.23 and 4.25 respectively, indicating neither group achieved 'no worse than mild pain'. Furthermore, this evidence was from a single study with high risk of bias and a very small sample size. There was no evidence on pain relief and we identified no clear differences between groups on other parameters, including 'no clinical response' to pain and withdrawals. There was no evidence on adverse events. The overall quality of evidence is very low due to study limitations (high risk of performance, detection, and attrition bias, and high risk of bias confounded by small study size) or imprecision. We have limited confidence in the effect estimate and the true effect is likely to be substantially different from the estimated effect.
Authors' Conclusions	Due to the limited data available, **there is insufficient evidence** to support or refute the use of acupuncture for neuropathic pain in general, or for any specific neuropathic pain condition when compared with sham acupuncture or other active therapies. Five studies are still ongoing and seven studies are awaiting classification due to the unclear treatment duration, and the results of these studies may influence the current findings.

1.1.7. Pittler 2008 Ø

Pittler Mh, Ernst E. Complementary therapies for neuropathic and neuralgic pain: systematic review. Clin J Pain. 2008;24(8):731-3. [150460]

Objective	To assess the evidence from rigorous clinical trials, systematic reviews, and meta-analyses of complementary and alternative therapies for treating neuropathic and neuralgic pain.

Methods	Systematic searches were carried out in the databases Medline, Embase, Amed, Scopus, the Cochrane Database of Systematic Reviews, Natural Standard, and the Natural Medicines Comprehensive Database. Each database was searched from its respective inception until March 2006. To be included, trials were required to state that they were randomized. Systematic reviews and meta-analyses were included if based on the results of randomized trials. No language restrictions were imposed.
Results	Five relevant systematic reviews and meta-analyses and 15 additional trials met the inclusion criteria and were reviewed. Data on the following complementary and alternative medicine treatments were identified: **acupuncture**, electrostimulation, herbal medicine, magnets, dietary supplements, imagery, and spiritual healing.
Conclusions	On the basis of our findings, the **evidence is not fully convincing for most complementary and alternative medicine modalities in relieving neuropathic or neuralgic pain**. However, for topically applied capsaicin there is evidence of effectiveness beyond placebo. The evidence can be classified as encouraging and warrants further study for cannabis extract, magnets, carnitine, and electrostimulation.

1.2. Special Clinical Forms

1.2.1. Neuropathic pain in older adults

1.2.1.1. Holmes 2024

Holmes A, Chang YP. Non-pharmacological management of neuropathic pain in older adults: a systematic review. Pain Med. 2024 Jan 4;25(1):47-56. https://doi.org/10.1093/pm/pnad112

Introduction	Neuropathic pain encompasses multiple diagnoses with detrimental impacts on quality of life and overall health. In older adults, pharmacological management is limited by adverse effects and drug interactions, while surgical management involves perioperative risk. Prior reviews addressing non-pharmacological interventions for neuropathic pain have not focused on this demographic. Therefore, this systematic review synthesizes the evidence regarding the effectiveness of non-pharmacological interventions in reducing neuropathic pain severity in older adults.
Methods	PubMed, CINAHL, Web of Science, and PsycInfo were searched using key terms, with inclusion criteria of age ≥ 65, neuropathic pain, non-pharmacological intervention, pain severity measurement, English language, peer-reviewed, and either randomized controlled trial (RCT) or quasi-experimental design. In total, 2759 records were identified, with an additional 28 records identified by review of reference lists. After removal of duplicates, 2288 records were screened by title and abstract, 404 full-text articles were assessed, and 19 articles were critically reviewed and synthesized.
Results	Of the 14 RCTs and 5 quasi-experimental studies included in the review, the most common intervention was electric and/or magnetic therapy, followed by **acupuncture**, mindfulness meditation, exercise, and light therapy. Several studies revealed both statistical and clinical significance, but conclusions were limited by small sample sizes and methodological shortcomings. The interventions were generally safe and acceptable.
Conclusions	Results should be interpreted with consideration of clinical vs statistical significance, mediators of pain severity, and individual variations in effectiveness. Further research should address multimodal and novel interventions, newer models of care, and technology-based interventions.

1.2.2. Postherpetic Neuralgia

1.2.2.1. Pu 2024 (Acupoint herbal patching)

Pu B, Lu X, Yu P, Wang C, Li J, Yang D, Wang J. Acupoint herbal patching for postherpetic neuralgia: A systematic review and meta-analysis. Medicine (Baltimore). 2024 Jan 26;103(4):e37029. https://doi.org/10.1097/MD.0000000000037029

Backgound	This study aimed to systematically evaluate the clinical effectiveness and safety of acupoint herbal patching in the treatment of postherpetic neuralgia.
Methods	Eight databases including PubMed, Embase, Cochrane Library, Web of Science, China National Knowledge Infrastructure, Wan-Fang Database, China Biomedical Literature Service System, and Chongqing VIP Chinese Science were searched. The search time was set to October 2023. Two researchers independently screened the literature according to the inclusion and exclusion criteria; extracted the basic information, acupoints, Chinese herbal medicine, pain score, sleep score, depression score, and other information of the subjects, and independently assessed the risk of bias by 2 researchers. Meta-analysis of the included studies was performed using the StataMP 16 software.
Results	**Fifteen studies with 1362 participants** were included in this meta-analysis. Ashi is the acupoint frequency at the forefront, and Borneol is the Chinese herbal medicine frequency at the forefront. The acupoint herbal patching group showed significant improvements in visual analog score (SMD: -2.09; 95% CI: -2.77, -1.42; P < .001), sleep score (SMD: -1.58; 95% CI: -2.11, -1.05; P < .001), depression score (SMD: -1.61; 95% CI: -2.22, -0.99; P < .001), Chinese medicine syndrome score (SMD: -2.32; 95% CI: -2.84, -1.80; P = .06), dermatology life quality index (weighted mean differences: -4.11; 95% CI: -4.58, -3.63; P = .98), and related laboratory indicators compared to the control group, and the total effective rate was significantly higher (relative risk: 1.20; 95% confidence interval: 1.15, 1.26; P = .99) than the control group. Two studies reported adverse reactions, but the 2 groups were not statistically significant.
Conclusions	Acupoint herbal patching intervention in postherpetic neuralgia is effective in improving the pain, sleep, anxiety, depression, quality of life of patients, and related laboratory indicators.

1.2.2.2. Kui 2023 (bloodletting puncture and cupping)

Kui W, Xie L, Li Y, Gu Z, Liu S, Xue C, Wang K. Efficacy and safety of bloodletting puncture and cupping in postherpetic neuralgia: A systematic review and meta analysis. Biomed Rep. 2023 Dec 28;20(2):30. https://doi.org/10.3892/br.2023.1718

Background	The present study aimed to evaluate the efficacy and safety of bloodletting puncture and cupping (BLP-C) in postherpetic neuralgia (PHN) and to provide guidance for clinical treatment.
Methods	Randomized controlled trials (RCTs) of BLP-C therapy in PHN were systematically searched in eight databases from inception to September 2022. Literature screening, data extraction and quality assessment were performed by two independent researchers. Dichotomous and continuous variables were pooled using the risk ratio (RR) and weighted mean difference (WMD), respectively.

Results	A total of **13 studies involving 1,129 patient**s with PHN (571 in the experimental group and 558 in the control group) were included in the present meta-analysis. Overall efficacy (RR=1.21, 95% CI: 1.15 to 1.28, P<0.00001), VAS score (WMD=-1.10, 95% CI: -1.31 to -0.90, P<0.00001) and PSQI score (WMD=-2.42, 95% CI: -2.87 to -1.96, P<0.0001) were significantly different between the BLP-C group and Western medicine group. Furthermore, subgroup analysis demonstrated that BLP-C alone or combined with other traditional Chinese medicines was more effective than Western medicine in PHN. A total of four RCTs mentioned adverse reactions, most of which were in the Western medicine group and were relieved after treatment discontinuation.
Conclusion	In conclusion, BLP-C is superior to Western medicine in relieving pain and improving the sleep quality of patients with PHN with a lower incidence of adverse effects.

1.2.2.3. Wu 2021 (moxibustion)

Wu Q, Hu H, Han D, Gao H. Efficacy and Safety of Moxibustion for Postherpetic Neuralgia: A Systematic Review and Meta-Analysis. Front Neurol. 2021. [221696]. https://doi.org/10.3389/fneur.2021.676525

Background	Postherpetic neuralgia (PHN) is one of the most common complications of herpes zoster (HZ), and there is still a lack of effective therapies. An increasing number of studies have found that compared to traditional therapy, moxibustion treatment is beneficial for the treatment of PHN, although current evidence remains inconclusive. This systematic review and meta-analysis of randomized controlled trials (RCTs) aimed to evaluate the efficacy and safety of moxibustion for PHN.
Methods	We conducted a broad literature review of a range of databases from inception to December 2020, including the Cochrane Library, PubMed, EMBASE, Web of Science, Clinical Trails, China National Knowledge Infrastructure (CNKI), VIP Database for Chinese Technical Periodicals (VIP), China Biomedical Network Information, and Wanfang databases. We included RCTs that compared moxibustion to pharmacological therapies, herbal medicine, or no treatment for treating PHN. The main outcome measure was efficacy rate and Visual Analog Scale (VAS); the secondary outcome measure was adverse events. Data accumulation and synthesis included meta-analysis, publication bias, sensitivity analysis, risk-of-bias assessment, and adverse events.
Results	We included 13 RCTs involving 798 patients. Compared with the controls (pharmacological therapies, herbal medicine, or no treatment), moxibustion achieved a significantly higher efficacy rate (odds ratio [OR]: 3.65; 95% [confidence interval]: [2.32, 5.72]; P < 0.00001). Subgroup analysis of the distinct moxibustion modalities showed that both Zhuang medicine medicated thread and thunder-fire moxibustions obtained higher clinical efficacy than the control group. Compared with the controls, moxibustion resulted in significantly lower scores on the VAS (Weighted Mean Difference (MD) = -1.79; 95% CI: [-2.26, -1.33]; P < 0.00001). However, there was no significant difference in terms of safety between moxibustion and the controls (OR = 0.33; 95% CI [0.06, 1.77]; P = 0.19).
Conclusion	Due to the lack of methodological quality as well as the significant heterogeneity of the included studies, it remains difficult to draw a firm conclusion on the efficacy and safety of moxibustion for the treatment of PHN. Future high-quality studies are urgently needed.

1.2.2.4. Zhou 2021

Zhou Q, Wei S, Zhu H, Hu Y, Liu Y, Yang H, Zeng S, Chai S, Li J, Tao M. Acupuncture and moxibustion combined with cupping for the treatment of post-herpetic neuralgia: A meta-analysis. Medicine

(Baltimore). 2021;100(31). [220911]. https://doi.org/10.1097/md.0000000000026785

Background	There are still controversies between the curative effect of acupuncture combined with cupping therapy and western medicine for post-herpetic neuralgia (PHN). Our meta-analysis fully incorporates the research of acupuncture combined with cupping therapy versus Western medicine for PHN, aiming to explore the difference in the efficacy of the 2 therapies, so as to provide guidance for clinical treatment.
Methods	We searched PubMed, Embase, Cochrane Library, CNKI, Wanfang, CQVIP, CBM, from establishment of the database to September, 2020. Include studies that are clearly defined as PHN or herpes zoster, and exclude duplicate publications; studies with no full text, incomplete information, or inability to extract data; the definition of exposure is quite different from most literature; animal experiments.
Results	The total effective rate (relative ratio [RR] = 1.21, 95% confidence interval [CI]: 1.12-1.31) and the rate of remarkable effect (RR = 1.46, 95% CI: 1.30-1.63) of acupuncture and moxibustion combined with cupping in the treatment of PHN were significantly higher than that of conventional western medicine. The visual analogue scale score of acupuncture and moxibustion combined with cupping for PHN was significantly lower than that of conventional western medicine treatment (WMD = -1.77, 95% CI [-2.79, -0.75]). In addition, acupuncture and moxibustion combined with cupping therapy significantly reduced the occurrence of PHN compared with conventional western medicine treatment after treatment of acute herpes zoster (RR = 0.30, 95% CI: 0.20-0.45). In order to explore the differences in the efficacy and preventive effects of different types of acupuncture and cupping therapy, we have further conducted a subgroup analysis.
Conclusion	The effect of acupuncture and moxibustion combined with cupping in the treatment of PHN is significantly higher than that of conventional western medicine, and it can significantly prevent the occurrence of PHN. Chinese medicine should be used more widely in the treatment of PHN.

1.2.2.5. Pei 2019 ☆

Pei W , Zeng J , Lu L , Lin G , Ruan J. Is acupuncture an effective postherpetic neuralgia treatment? A systematic review and meta-analysis. J Pain Res. 2019:2155-2165. [200474].

Background	Postherpetic neuralgia (PHN) refers to pain which remains after the healing of rashes from herpes zoster. Previous literatures have shown that acupuncture has potential benefits for PHN, but evidence remains lacking. Thus, we have performed a systematic review and meta-analysis to identify the effectiveness of acupuncture in the treatment of PHN.
Methods	Six databases were searched for randomized controlled trials (RCTs) to assess the effects of acupuncture on PHN. After selecting the studies, extracting the data, and assessing study quality, meta-analysis was performed on several of the studies with RevMan 5.3. The GRADE (Grading of Recommendations Assessment Development and Evaluation) system was used to assess the overall quality of the evidence.
Results	Acupuncture helps relieve pain intensity (standardized mean difference [SMD]: -1.78, 95% confidence interval [CI]: -2.36 to -1.21). For other intervention types, electroacupuncture (SMD: -1.28, 95% CI: -2.51 to -0.05), fire needle (SMD: -2.23, 95% CI: -2.62 to -1.84), bloodletting and cupping (SMD: -2.46, 95% CI: -2.95 to -1.97) have better effects on pain intensity relief. To date, no study has reported on the onset of pain relief time. The Hamilton Anxiety Scale score (SMD: -18.94, 95% CI: -37.37 to -0.52) was lower for the acupuncture group than for the control group. It was also found that acupuncture can improve quality of life (QOL) (SMD: 3.78, 95% CI: 2.50 to 5.06). The quality of evidence for acupuncture for PHN pain intensity was moderate according to the GRADE system.

Conclusion	Acupuncture may reduce pain intensity, relieve anxiety and improve quality of life in patients with PHN. Further randomized trials with larger sample sizes and of higher methodological quality are needed to confirm these results.

1.2.2.6. Wang 2018 ☆

Wang Y, Li W, Peng W, Zhou J, Liu Z. Acupuncture for postherpetic neuralgia: Systematic review and meta-analysis. Medicine (Baltimore). 2018;97(34). [168621].

Background	Acupuncture is widely used for postherpetic neuralgia (PHN) in China but its effect is unclear. We aim to evaluate the effect and safety of acupuncture for PHN.
Methods	The Cochrane Skin Group Trials Register, The Cochrane Central Register of Controlled Trials, MEDLINE, Embase, the Chinese Biomedical Literature Database, the China National Knowledge Infrastructure, and the gray literature were searched. Randomized controlled trials (RCTs) comparing acupuncture alone versus no treatment/another active therapy/sham acupuncture, or comparing acupuncture with another active therapy versus the same active therapy were included.
Results	**Seven RCTs** comparing acupuncture versus pharmacologic therapy were included. Meta-analysis was conducted for acupuncture's effect on PHN evaluating by pain intensity. **Results from 2 RCTs showed that compared with pharmacologic therapy, acupuncture was better in decreasing the pain intensity measured by visual analog scale score** (mean difference: 1.80, 95% confidence interval 1.72-1.87; P<.001). The limitations of the study are as follows: only trials comparing acupuncture versus pharmacologic therapy were included and all of the included trials were performed in China.
Conclusion	There was not enough evidence to suggest that acupuncture was superior to pharmacologic therapy in improving global impression or life quality. No adverse effects about acupuncture were reported. In all, acupuncture is safe and might be effective in pain relieving for patients with PHN. Given the low quality of included studies, the results are not conclusive and more large-scale RCTs with high quality are needed.

1.2.2.7. Dong 2017

Dong Qiao. [Meta-analysis of the Efficacy of Acupuncture and Drug Therapy for Postherpetic Neuralgia]. Journal of Liaoning University of Traditional Chinese Medicine. 2017;11. [44559].

Objective	To evaluate the therapeutic effect of acupuncture therapy and drug therapy for postherpetic neuralgia by Meta-analysis.
Methods	Used the current mainstream China database: China Journal Full-text Database (CNKI, 2004—2017) and Chongqing VIP journals database (VIP, 2004—2017), Wan Fang database (WF, 2004—2017), China biomedical literature database (CBM, 2004—2017). In order to collect randomized controlled analysis report to the relevant literature of acupuncture treatment of postherpetic neuralgia, search strategy, inclusion and exclusion criteria were selected to meet the standard set by the analysis of related literature, and literature verification and analysis by using Rev Man5. 3. 3 software.

Results	**The study included 14 articles**, with electroacupuncture for treatment of 4 references, methods of treatment for the needle 10 articles, all documents writing quality is generally low phenomenon. Meta-analysis: a comparison of acupuncture therapy and routine medicine difference, the cure rate of OR=4. 29, 95% CI [2. 84, 6. 47] (P<0. 0001); the total efficiency of OR=3. 07, 95% CI [2. 33, 4. 03] (P<0. 0001); comparison of subgroup analysis on the efficacy of electroacupuncture and acupuncture therapy difference, the cure rate of OR=3. 43, 95% CI [2. 33, 5. 04] (P=0. 27) ; the total efficiency of OR=4. 29, 95% CI [2. 84, 6. 47] (P=0. 03).
Conclusion	Acupuncture therapy compared with conventional drug treatment of herpes zoster pain therapeutic advantages, can improve the total cure rate and total effective rate, but there are no significant differences on the effect of electro acupuncture and acupuncture.

1.2.2.8. Hempenstall 2005 Ø

Hempenstall K, Nurmikko TJ, Johnson RW, A'hern RP, Rice AS. Analgesic Therapy in Postherpetic Neuralgia: A Quantitative Systematic Review. Plos Med. 2005;2(7). [140413].

Objectives	Postherpetic neuralgia (PHN) is a complication of acute herpes zoster, which is emerging as a preferred clinical trial model for chronic neuropathic pain. Although there are published meta-analyses of analgesic therapy in PHN, and neuropathic pain in general, the evidence base has been substantially enhanced by the recent publication of several major trials. Therefore, we have conducted a systematic review and meta-analysis for both efficacy and adverse events of analgesic therapy for PHN.
Methods	We systematically searched databases (MEDLINE 1966-2004, EMBASE 1988-2004, CINAHL 1982-2002, and PubMed [29 October 2004]) for trials of PHN. We also searched references of retrieved studies and review articles for further trials. We included trials that examined adult patients with PHN of greater duration than 3 mo, that were blinded, randomised, and had at least one measure of pain outcome. Dichotomous pain outcome data were extracted for 50% decrease in baseline pain using a hierarchy of pain/pain-relief measurement tools. Where available, dichotomous data were also collected for adverse events. Calculated estimates of efficacy included relative benefit and number needed to treat.
Results	Of 62 studies identified, 35 were randomised controlled trials. Of these, 31 were placebo controlled and suitable for meta-analysis, from which it was possible to extract dichotomous efficacy outcome data from 25.This meta-analysis revealed that there is evidence to support the use of the following orally administered therapies: tricyclic antidepressants, “strong” opioids, gabapentin, tramadol, and pregabalin. Topical therapies associated with efficacy were lidocaine 5% patch and capsaicin. Finally, a single study of spinal intrathecal administration of lidocaine and methyl prednisolone demonstrated efficacy, although this has yet to be replicated.Data suggest that the following therapies are not associated with efficacy in PHN: certain NMDA receptor antagonists (e.g., oral memantine, oral dextromethorphan, intravenous ketamine), codeine, ibuprofen, lorazepam, certain 5HT(1) receptor agonists, and acyclovir. Topical administration of benzydamine, diclofenac/diethyl ether, and vincristine (iontophoresis) are similarly not associated with efficacy, nor are intrathecal administration of lidocaine alone or epidural administration of lidocaine and methylprednisolone, intravenous therapy with lidocaine, subcutaneous injection of Cronassial, or **acupuncture**. However, many of the trials that demonstrated a lack of efficacy represented comparatively low numbers of patient episodes or were single-dose studies, so it may be appropriate to regard such interventions as **“not yet adequately tested” rather than demonstrating “no evidence of efficacy.”** Topical aspirin/diethyl ether has not been adequately tested.

Conclusions	The evidence base supports the oral use of tricyclic antidepressants, certain opioids, and gabapentinoids in PHN. Topical therapy with lidocaine patches and capsaicin is similarly supported. Intrathecal administration of methylprednisolone appears to be associated with high efficacy, but its safety requires further evaluation.

1.2.2.9. Volmink 1996 Ø

Volmink J et al. Treatments for postherpetic neuralgia: a systematic review of randomized controlled trials. Family Practice. 1996;13(1):84-91. [72146]

Background	A number of different therapies have been used for postherpetic neuralgia. We decided to conduct a systematic review of existing randomized controlled trials.
Objective	To determine the efficacy of available therapies for relieving the pain of established postherpetic neuralgia.
Methods	We performed a systematic review, including meta-analysis, of existing randomized controlled trials. Eleven published trials and one unpublished trial were identified which met the inclusion criteria and were included in the current review.
Results	Pooled analysis of the effect of tricyclic antidepressants demonstrate statistically significant pain relief (OR 0.15, CI 0.08-0.27). Pooling of the results of the three trials comparing the effects of capsaicin and placebo could not be done due to heterogeneity. This heterogeneity was mainly attributable to an unpublished trial which differed in terms of the dose and duration of treatment. When this study was omitted, no heterogeneity was found and the pooled analysis revealed a statistically significant benefit (OR 0.29, 95% CI 0.16-0.54). However, problems with blinding in patients using capsaicin may have accounted for the positive effect. One small study of vincristine iontophoresis compared to placebo also yielded a favourable result (OR 0.05, 95% 0.01-0.26). Other treatment evaluated include lorazepam, acyclovir, topical benzydamine, and **acupuncture**. We found no evidence that these are effective in relieving pain associated with postherpetic neuralgia.
Conclusion	Based on evidence from randomized trails, tricyclic anti-depressants appear to be the only agents of proven benefit for established postherpetic neuralgia.

1.2.3. HIV-Neuropathy

1.2.3.1. Amaniti 2019

Amaniti A, Sardeli C, Fyntanidou V, Papakonstantinou P, Dalakakis I, Mylonas A, Sapalidis K. Pharmacologic and Non-Pharmacologic Interventions for HIV-Neuropathy Pain. A Systematic Review and a Meta-Analysis. Medicina (Kaunas). 2019;55(12). [203319].

Background and Objectives	Among HIV infection symptoms, sensory neuropathy (HIV-SN) remains a main cause of suffering, with incidence varying from 13-50%. So far, numerous pharmacological and non-pharmacological treatments have been tested, although few evidence-based analgesic options are available. We conducted an up-to-date systematic review and meta-analysis of the literature in order to evaluate the efficacy and safety of pharmacologic and non-pharmacologic treatments for pain control, in patients with HIV neuropathy.

Materials and Methods	We searched MEDLINE, EMBASE, Scopus/Elsevier, The Cochrane Central Register of Controlled Trials (CENTRAL), USA Clinical Trials registry, and The International Web of Science up to April 2019. All randomized controlled trials evaluating efficacy and safety of non-pharmacologic and pharmacologic therapies were included. Efficacy was defined as pain reduction during the study period. Safety was estimated from adverse events. A meta-analysis was performed whenever possible.
Results	27 randomized controlled trials (RCTs) were included for analysis (7 evaluating non pharmacologic interventions, 20 pharmacologic therapies). Non-pharmacologic studies (n = 742) involved seven different therapeutic modalities. **Only Acupuncture/Moxibustion showed pain reduction over placebo**, Gracely Pain Scale Mean (SD): Acu/Moxa 0.85 (0.12), placebo 1.10 (0.09), p = 0.05. Pharmacologic studies, involving 2516 patients revealed efficacy for capsaicin 8% over placebo (mean difference -8.04 [95% CI: -14.92 -1.15], smoked cannabis (where pooling data for meta-analysis was not possible) and recombinant Nerve Growth Factor.
Conclusion	Despite various modalities for pain control in HIV-SN, strongest evidence exists for capsaicin 8% and smoked cannabis, although of low methodological quality. Among non-pharmacologic modalities, **only Acu/Moxa gave a marginal beneficial effect in one study**, possibly limited by inherent methodological flaws.

1.2.4. Post-mastectomy pain syndrome

1.2.4.1. Kannan 2022

Kannan P, Lam HY, Ma TK, Lo CN, Mui TY, Tang WY. Efficacy of physical therapy interventions on quality of life and upper quadrant pain severity in women with post-mastectomy pain syndrome: a systematic review and meta-analysis. Qual Life Res. 2022 Apr;31(4):951-973. https://doi.org/10.1007/s11136-021-02926-x

Purpose	To determine the efficacy of physical therapy interventions on quality of life (QoL) and pain severity in post-mastectomy pain syndrome (PMPS).
Methods	Multiple databases were searched from database inception to October 2020. Searches were limited to human studies published in either English or Chinese in peer-reviewed journals with full text available for randomized controlled trials conducted on females. Trials comparing the effectiveness of physical therapy interventions against control conditions on QoL and pain were included.
Results	Eighteen trials were included in the review. The pooled analysis of the four exercise trials revealed a significant effect of the intervention on general [standardized mean difference [SMD]: 0.87 (95%CI: 0.36, 1.37); p = 0.001], physical [SMD: 0.34 (95%CI: 0.01, 0.66); p = 0.044], and mental health components [SMD: 0.27 (95%CI: 0.03, 0.51); p = 0.027] of QoL compared with the control condition. Meta-analyses of six exercise trials, two myofascial release trials, and **two acupuncture trials** revealed a significant improvement in pain severity in the treatment group than in the control group. However, meta-analyses of two studies revealed a non-significant effect of compression therapy compared to control on pain severity.
Conclusion	Our meta-analyses found that exercise is beneficial for improving the QoL and pain severity of women with PMPS. Future studies are needed to determine the optimal parameters for exercise interventions designed to improve QoL and pain severity in women with PMPS. The effect of **acupuncture**, myofascial release, and compression therapy remains inconclusive, and future research is required to validate the effect of these interventions on PMPS.

1.3. Specific Acupuncture Techniques

1.3.1. Traditional Chinese medicine (TCM) mind-body therapies

1.3.1.1. Zheng 2023

Zheng RX, Xu JW, Jiang BY, Tang W, Lu CL, Hu XY, Liu JP. Mind-body therapies in traditional Chinese medicine for Neuropathic Pain: A Systematic Review of Randomized Controlled Trials. Pain Manag Nurs. 2023 Apr;24(2):157-170. https://doi.org/10.1016/j.pmn.2022.10.003

Objectives	To evaluate the effectiveness and safety of traditional Chinese medicine (TCM) mind-body therapies in patients with neuropathic pain.
Methods	Design: This systematic review was undertaken according to the PRISMA 2020 statement. Data sources: We searched randomized controlled trials (RCTs) in seven English databases and four Chinese databases up to March 2022. Review/analysis Methods : The Cochrane Risk of Bias 2 was used for the quality assessment, and the mean difference with a 95% confidence interval for data pooling. The review was registered in the INPLASY (INPLASY202240016).
Results	Twenty-three RCTs were identified, including 1,693 patients with lumbar herniated discs (LHD), cervical spondylotic radiculopathy (CSR), sympathetic cervical spondylosis (SCS), trigeminal neuralgia, and central poststroke pain. Pooled results showed that for LHD, TCM mind-body therapy used alone (MD: -0.57, [-0.77, -0.36], P□0.01, week 8) or combined with physiotherapy (MD: -1.02, [-1.12, -0.91], P□0.01, week 4) showed advantages over physiotherapy alone on pain relief. However, there was no statistical difference on physical function. For CSR, TCM mind-body movement combined with physiotherapy had better effect than physiotherapy alone on pain relief (MD: -1.15, [-1.37, -0.94], P□0.01, week 4). Six trials reported safety. Nausea, dizziness, fatigue, and pain at the acupuncture point were observed.
Conclusions	Low-quality evidence showed that TCM mind-body therapies might reduce pain intensity and improve physical function when used as an adjuvant therapy or monotherapy. There is a need to conduct high-quality trials to confirm the effectiveness and safety of TCM mind-body therapies for neuropathic pain.

1.3.2. Comparison of acupuncture techniques

1.3.2.1. Cui 2023

Cui Y, Zhou X, Li Q, Wang D, Zhu J, Zeng X, Han Q, Yang R, Xu S, Zhang D, Meng X, Zhang S, Sun Z, Yin H. Efficacy of different acupuncture therapies on postherpetic neuralgia: A Bayesian network meta-analysis. Front Neurosci. 2023 Jan 10;16:1056102. https://doi.org/10.3389/fnins.2022.1056102.

Background	Postherpetic neuralgia (PHN) is a common, complex, and refractory type of neuropathic pain. Several systematic reviews support the efficacy of acupuncture and related treatments for PHN. Nevertheless, the efficacy of various acupuncture-related treatments for PHN remains debatable.
Objective	We aimed to assess the efficacy and safety of acupuncture-related treatments for PHN, identify the most effective acupuncture-related treatments, and expound on the current inadequacies and prospects in the applications of acupuncture-related therapies.

Methods	We searched PubMed, Cochrane Central Register of Controlled Trials, Embase, Web of Science, Google Scholar, four Chinese databases (China National Knowledge Infrastructure, China Biomedical, Chongqing VIP, and Wan Fang databases), clinical research registration platform (World Health Organization International Clinical Trial Registration platform, China Clinical Trial Registration Center) for relevant studies. We also examined previous meta-analyses; gray literature; and reference lists of the selected studies. We then evaluated the risk of bias in the included studies and performed a Bayesian multiple network meta-analysis.
Results	We included **29 randomized controlled trials comprising 1,973 patients**, of which five studies showed a high risk of bias. The pairwise meta-analysis results revealed that the efficacy of all acupuncture-related treatments for pain relief related to PHN was significantly better than antiepileptics. The network meta-analysis results showed that pricking and cupping plus antiepileptics were the most effective treatment, followed by electroacupuncture (EA) plus antiepileptics for pain relief in patients with PHN. EA plus antiepileptics ranked the best regarding reduced Pittsburgh Sleep Quality Index (PSQI) and Self-Rating Depression Scale (SDS) scores in patients with PHN. No results were found regarding the total response rate or quality of life in this study. Acupuncture-related treatments showed a lower incidence of adverse events than that of antiepileptics.
Conclusion	Acupuncture-related therapies are potential treatment options for PHN and are safe. Pricking and cupping plus antiepileptics, are the most effective acupuncture-related techniques for pain relief, while EA plus antiepileptics is the best acupuncture-related technique for improving PHN-related insomnia and depression symptoms. However, owing to the limitations of this study, these conclusions should be cautiously interpreted, and future high-quality studies are needed.

1.3.2.2. Wang 2022

Wang H, Wan R, Chen S, Qin H, Cao W, Sun L, Shi Y, Zheng Q, Li Y. Comparison of Efficacy of Acupuncture-Related Therapy in the Treatment of Postherpetic Neuralgia: A Network Meta-Analysis of Randomized Controlled Trials. Evid Based Complement Alternat Med. 2022 Oct 14;2022:3975389. https://doi.org/10.1155/2022/3975389.

Background	Postherpetic neuralgia (PHN) is the most common sequela of herpes zoster, and the efficacy of the treatment regimens recommended in the guidelines is not entirely reliable. Acupuncture and moxibustion are widely used complementary alternative therapies that have a positive effect on the treatment of PHN. However, there are various forms of acupuncture and moxibustion, and there are differences in efficacy between the different forms.
Methods	The retrieval work of randomised controlled trials (RCTs) of acupuncture for PHN in English databases (including PubMed, Cochrane Library, Embase, Web of Science) and Chinese databases (including China National Knowledge Infrastructure (CNKI), WeiPu database, WanFang database, and China Biomedical Literature Database) were conducted from the time of database creation to June 2022. Literature screening, data extraction, and evaluation of risk of bias for the included studies were carried out independently by two researchers, and data analysis was performed using Stata 14.2 software.
Results	A total of **30 RCTs including 2138 patients** with PHN were included. In terms of pain improvement, acupoint embedding + Western medicine group, bloodletting-cupping group, and bloodletting-cupping + Western medicine group ranked top. In terms of total efficiency, acupuncture + Western medicine group, bloodletting-cupping + Western medicine group, and acupoint embedding group ranked top. There were no statistically significant differences in the incidence of adverse events between treatment regimens.

Conclusions	In a comprehensive comparison of the outcome indicators of 14 different treatment regimens, we considered acupoint injection + Western medicine and bloodletting-cupping + Western medicine to be the best combinations for the treatment of PHN. Due to the limitations of the study, the above conclusions still need to be validated in further multi-centre, large-sample prospective randomised controlled clinical trials.

1.3.2.3. Zhao 2022

Zhao W, Huang H, Liu K, Wang S, Lin S, Long W, Li L, Zeng J, Lin G. Acupuncture and Moxibustion for Peripheral Neuropathic Pain: A Frequentist Network Meta-Analysis and Cost-Effectiveness Evaluation. Evid Based Complement Alternat Med. 2022 Mar 16;2022:6886465. https://doi.org/10.1155/2022/6886465

Purpose	Acupuncture and moxibustion techniques have been increasingly used to treat peripheral neuropathic pain (PNP). However, there is a paucity of comparative information and cost-effectiveness assessment for techniques on PNP management. Patients and Methods. Randomized controlled trials studying the acupuncture or moxibustion treatments on PNP were identified from electronic databases. The quality of the included studies and the potential risk of bias was evaluated using the ROB 2.0 assessment tool. The primary outcome was at least 20% pain relief. The treatment effects were pooled through a frequentist-based network meta approach. Subsequently, the cost-effectiveness measured by incremental cost per additional responder (ICPR) was calculated.
Results	**One three-arm trial and 15 two-arm trials comprising 1308 participants** that satisfy the eligibility criteria were identified. Among the included studies, 12.5% were at low risk of bias, 68.75% had some concerns about the risk of bias, and 18.75% were at high risk of bias. The major sources of bias originated from the randomization processes of the studies. The patients were assigned to seven different acupuncture or moxibustion interventions and two pharmaceutical treatments. Except for acupoint injection, all the included acupuncture and moxibustion techniques showed superior improvements in PNP and were more cost-effective as compared to pharmaceutical treatments. Warm needling, fire needling, and moxibustion were the most effective treatments. Fire needling showed the lowest ICPR relative to the nonsteroidal anti-inflammatory drugs in the cost-effectiveness analysis of direct and indirect costs.
Conclusion	Acupuncture and moxibustion techniques are beneficial and cost-effective approaches for easing PNP and hence can be considered for PNP management.

1.3.3. Electro-acupuncture

1.3.3.1. Zhou 2017

Zhou Jie, Chen Qin, Liang Yi. [Systematic review of electro-acupuncture in the treatment of neuropathic pain]. China Modern Doctor. 2017;2. [52382].

Objective	To evaluate the efficacy and safety of electro-acupuncture on neuropathic pain.

Methods	Randomized controlled trials on electro-acupuncture in the treatment of neuropathic pain were searched from CNKI, WanFang Data, VIP, CBM, Embase, Pub Med and the Cochrane Library via computer. The treatment group was treated with electro-acupuncture or electro-acupuncture combined with other conventional treatment, and the control group was given conventional treatment. The search period was from October 1996 to October 2016. The literatures were screened and the data were extracted by two investigators independently according to the inclusion and exclusion criteria, and the Cochrane risk-bias assessment tool was applied to conduct the risk assessment of bias for the included literatures. Meta-analysis was performed using Rev Man 5. 3 software.
Results	17 pieces of literature were included, with a total of 1107 subjects. The results of Meta-analysis showed that the treatment group was superior to the control group in improving the total effective rate of treatment [OR=3. 77, 95%CI (2. 61, 5. 46), P<0. 00001]. There were no differences between the treatment group and the control group in terms of reducing VAS scores [MD=-0. 29, 95%CI (-0. 65, 0. 06), P=0. 10], and reducing the recurrence rate [OR=0. 47, 95%CI (0. 12, 1. 94), P=0. 30].
Conclusion	The existing evidence suggests that electro-acupuncture in the treatment of neuropathic pain can improve the total effective rate. There was no significant difference between the two groups in reducing the VAS score and reducing the recurrence rate. However, the conclusion of this study needs to be verified by more high quality experiments due to the limitations of included study samples.

1.3.4. Bloodletting Combined with electroacupuncture

1.3.4.1. Yang 2024

Yang Y, Xu W, Li M, Zhou Y, Qian Y. Collateral-Pricking and Bloodletting Cupping Combined with Electroacupuncture for Postherpetic Neuralgia: A Meta-Analysis. Altern Ther Health Med. 2024 Nov;30(11):290-296.

Backgound	Acupuncture therapy has demonstrated significant efficacy in the treatment of postherpetic neuralgia, effectively alleviating pain intensity and enhancing patients' quality of life. However, the effectiveness of collateral-pricking and bloodletting cupping combined with electroacupuncture in the treatment of postherpetic neuralgia remains a subject of controversy. We aimed to assess the efficacy and safety of collateral-pricking and bloodletting cupping combined with electroacupuncture for postherpetic neuralgia.
Methods	We identified relevant randomized controlled trials by conducting a comprehensive search in multiple databases: China National Knowledge Infrastructure, China Biomedical Literature, Wanfang Data, PubMed, Cochrane Central Register of Controlled Trials, Embase, and Web of Science. The outcome included efficacy rate, visual analog scale (VAS)scores and pittsburgh sleep quality index (PSQI) scores. We meticulously assessed the risk of bias in the included trials and performed a meta-analysis.

Results	We analyzed **9 randomized controlled trials involving 639 patients**. Collateral-pricking and bloodletting cupping combined with electroacupuncture achieved a significantly higher efficacy rate (risk ratio, 1.22 [95% CI, 1.13-1.31]; P < .001), reduced theVAS scores (standardized mean difference, -1.52 [95% CI, -2.26 to -0.79]; P < .001), and improved the PSQI scores (standardized mean difference, -2.31 [95% CI, -3.97 to -0.64]; P = .007) compared with the control groups. The subgroup analysis revealed that the combined treatment of collateral-pricking and bloodletting cupping and electroacupuncture had a significantly higher total effective rate compared with the carbamazepine, electroacupuncture, and pregabalin groups (P < .05). The total efficacy rate of the collateral-pricking and bloodletting cupping combined with electroacupuncture group was superior to that of the control group, irrespective of whether 2 or 3 courses were administered (P < .05).
Conclusion	Existing evidence suggests that the combination of collateral-pricking and bloodletting cupping and electroacupuncture demonstrates efficacy in pain relief, improvement of sleep quality, and enhanced therapeutic outcomes for patients with postherpetic neuralgia. However, further validation through large-scale multicenter randomized controlled trials is warranted due to the limited quantity and quality of the included literature in this study.

2. Overviews of systematic reviews

2.1. Xia 2025

Xia YF, Sun RH, Li SM, Wang YY, Li RR, Fang JQ. Different Acupuncture Therapies for Postherpetic Neuralgia: An Overview of Systematic Reviews and Meta-analysis. Chin J Integr Med. 2025 Jan;31(1):55-67. https://doi.org/10.1007/s11655-023-3613-4

Backgound	Postherpetic neuralgia (PHN) is the most common complication of herpes zoster infection and affects patients' quality of life. Acupuncture therapy is regarded as a competitive method of treatment for analgesia.
Objective	To summarize evidence from systematic reviews (SRs) and evaluate the effectiveness and safety of different acupuncture therapies for treating PHN.
Methods	Eight electronic databases were searched from their inception to August 5, 2022, including 4 international electronic databases (PubMed, EMBASE, the Cochrane Library, and Web of Science) and 4 Chinese databases (Chinese Biomedical Database, China National Knowledge Infrastructure, VIP Database and Wanfang Database). Methodological quality was assessed by A Measurement Tool to Assess Systematic Reviews 2 (AMSTAR 2). The Risk of Bias in Systematic Review (ROBIS) tool was used to assess the risk of bias in SRs. Evidence level was assessed by the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) approach.
Results	Totally, **7 SRs were included, including 128 studies and 9,792 patients**. In AMSTAR 2, most of the SRs were of low or critically low levels since they had more than 1 critical deficiency. In ROBIS, 1 SR (14.29%) was rated as high risk, and the other 6 (85.71%) were rated as low risk. In the GRADE system, 9 outcomes (28.13%) were valued as high level, 5 (15.63%) as moderate level, 1 (3.13%) as low, and 17 (53.13%) as very low. In the effectiveness of acupuncture therapy, the group “moxibustion vs. original medical treatment” [mean difference (MD)=-1.44, 95% confidence interval (CI): -1.80 to -1.08, I2=99%, P<0.00001] was of the highest heterogeneity and the group “bloodletting vs. original medical treatment” (MD=-2.80, 95% CI: -3.14 to -2.46, I2=0, P<0.00001) was of the lowest heterogeneity. Six SRs have reported the safety of their studies and no serious events were shown in the treatment and control groups.

Conclusions	Acupuncture therapy seems to be effective in treating PHN. Despite the evidence that suggested the advantages of acupuncture therapy in relieving pain and promoting efficacy and safety, the methodological quality was quite low. Further studies should pay more attention to the quality of original studies and evidence for SRs to confirm these findings. (PROSPERO registration No. CRD42022344790).

3. Clinical Practice Guidelines

⊕ positive recommendation (regardless of the level of evidence reported)
Ø negative recommendation (or lack of evidence)

3.1. Fédération Bruxelloise de Soins Palliatifs et Continus (FBSP, Belgique) 2023 ⊕

Douleur neuropathique. Palliaguide - Guidelines de soins palliatifs. Belgique 2023. 2023-12-05 : Réactualisation complète du domaine.
https://www.palliaguide.be/douleur-neuropathique-soins-palliatifs/

Les techniques telles que l'**acupuncture** et les techniques de neurostimulation transcutanée (TENS) peuvent aider. A contrario, en cas d'allodynie, les stimuli déclenchants (mécaniques, thermiques) doivent être supprimés, dans la mesure du possible.

3.2. CanPain SCI clinical practice guidelines (Canada) 2022 Ø

Loh E, Mirkowski M, Agudelo AR, et al. The CanPain SCI clinical practice guidelines for rehabilitation management of neuropathic pain after spinal cord injury: 2021 update. Spinal Cord. 2022. [222875]. https://www.nature.com/articles/s41393-021-00744-z

The WG voted on a possible recommendation for acupuncture. A slight majority (56%) agreed that acupuncture should be a recommendation, but this did not reach threshold for inclusion (75%).

3.3. College of Family Physicians of Canada (CFPC, Canada) 2021 Ø

Korownyk CS, Montgomery L, Young J, Moore S, Singer AG, MacDougall P, Darling S, Ellis K, Myers J, Rochford C, Taillefer MC, Allan GM, Perry D, Moe SS, Ton J, Kolber MR, Kirkwood J, Thomas B, Garrison S, McCormack JP, Falk J, Dugré N, Sept L, Turgeon RD, Paige A, Potter J, Nickonchuk T, Train AD, Weresch J, Chan K, Lindblad AJ. PEER simplified chronic pain guideline: Management of chronic low back, osteoarthritic, and neuropathic pain in primary care. Can Fam Physician. 2022 Mar;68(3):179-190. https://doi.org/10.46747/cfp.6803179

Neuropathic pain. No benefit: **acupuncture**, topical ketamine, topical.

3.4. Société française pour l'étude et le traitement de la douleur (SFETD, France), Société française de neurologie (SFN, France) 2020 Ø

Moisset X, Bouhassira D, Avez Couturier J, Alchaar H, Conradi S, Delmotte MH, Lanteri-Minet M, Lefaucheur JP, Mick G, Piano V, Pickering G, Piquet E, Regis C, Salvat E, Attal N. Pharmacological and non-pharmacological treatments for neuropathic pain: Systematic review and French recommendations. Rev Neurol (Paris). 2020;176(5):325-352. [172345]. doi

Recommendation: The evidence concerning the level of recommendation for aromatherapy, **auricular acupuncture** and low-level laser therapy was inconclusive, as it was obtained in single low- or moderate-quality trials. This does not rule out the potential efficacy of mirror therapy, hypnosis and **acupuncture** in neuropathic pain, which have been evaluated in randomized controlled studies in which neuropathic pain was assessed at early time points (before 3 weeks) or in trials not focusing on neuropathic pain.

3.5. CanPain SCI clinical practice guidelines (Canada) 2016 Ø

Guy SD, Mehta S, Casalino A, Côté I, Kras-Dupuis A, Moulin DE, Parrent AG, Potter P, Short C, Teasell R, Bradbury CL, Bryce TN, Craven BC, Finnerup NB, Harvey D, Hitzig SL, Lau B, Middleton JW, O'Connell C, Orenczuk S et al. The CanPain SCI Clinical Practice Guidelines for Rehabilitation Management of Neuropathic Pain after Spinal Cord: Recommendations for treatment. Spinal Cord. 2016;54 (Suppl 1):S14-23. [223624]. https://doi.org/10.1038/sc.2016.90

Studies of acupuncture suffer from a lack of standardization of process or procedure delivery and practice principles, and evidence for effectiveness is inconclusive. Additional studies are needed to clarify the benefit of using this modality.

3.6. Canadian Pain Society 2012 Ø

Mailis A, Taenzer P. Evidence-based guideline for neuropathic pain interventional treatments: spinal cord stimulation, intravenous infusions, epidural injections and nerve blocks. Pain Res Manag. 2012;17(3):150-8. [197042].

While members of the CPS indicated that cognitive behavioural therapy, acupuncture and transcutaneous electrical nerve stimulation were treatments of great interest to practicing clinicians, the existing literature on these approaches does not focus on their effectiveness for patients with neuropathic pain. As a result, evidence-based recommendations for these modalities in the treatment of neuropathic pain are not possible at this time.

3.7. Société Française d'Etude et de Traitement de la Douleur (SFETD, France) 2010 ⊕

Martinez V, Attal N, Bouhassira D, Lantéri-Minet M. Les douleurs neuropathiques chroniques diagnostic, évaluation et traitement en médecine ambulatoire. Douleurs : Evaluation - Diagnostic - Traitement. 2010; 11(1):3-21. [156885].

Acupuncture : peut être proposée dans la douleur post-zostérienne. Niveau de preuve scientifique : 2. Grade de recommandation : B (présomption d'efficacité dans la douleur post-zostérienne).

3.8. Croatian Society for Neurovascular Disorders, Croatian Medical Association (Croatie) 2008 Ø

Demarin V, Basić-Kes V, Zavoreo I, Bosnar-Puretić M, Rotim K, Lupret V, Perić M, Ivanec Z, Fumić L, Lusić I, Aleksić-Shihabis A,. Recommendations for neuropathic pain treatment. Acta Clin Croat. 2008;47(3):181-91. [153107].

Acupuncture is a complementary and alternative medical modality. Since 1998, a considerable number of acupuncture studies have been reported . It has been integrated into palliative care medicine. Most of controlled clinical trials (23/27) have shown results favoring acupuncture use for the conditions such as headache or pain. They also have shown that acupuncture is safe and clinically cost-effective for the management of common symptoms in palliative care and hospice patients. There is a risk of skin irritation or an allergic reaction from the application of needles to the skin, but these problems are relatively rare and easily managed by shifting the needle position. Thereare not yet enough evidence-based treatment recommendations.

3.9. European Federation of Neurological Societies (EFNS) 2007 ⊕

Cruccu G, Aziz TZ, Garcia-Larrea L, Hansson P, Jensen TS, Lefaucheur JP, Simpson Ba, Taylor RS. EFNS guidelines on neurostimulation therapy for neuropathic pain. Eur J Neurol. 2007;14(9):952-70. [146664].

High-frequency transcutaneous electrical nerve stimulation (TENS) may be better than placebo (level C) although worse than electroacupuncture (level B).

3.10. American Academy of Neurology 2004 Ø

Dubinsky RM, Kabbani H, El-Chami Z, Boutwell C, Ali H. Practice Parameter: Treatment of Postherpetic Neuralgia: An Evidence-Based Report of the Quality Standards Subcommittee of the American Academy of Neurology. Neurology. 2004;63(6):959-65. [136450].

Acupuncture, benzydamine cream, dextromethorphan,indomethacin, epidural methylprednisolone,epidural morphine sulfate, iontophoresis of vincristine, lorazepam, vitamin E, and zimelidine are not of benefit (Level B, class II).