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Rheumatoid Arthritis

Polyarthrite rhumatoïde : évaluation de l'acupuncture

articles connexes : - taiji-qigong - conduites thérapeutiques -

1. Systematic Reviews and Meta-Analysis

1.1. Generic Acupuncture

1.1.1. Wang 2026

Wang Y, Zhu J, Xue F, Liu W. A systematic review and meta-analysis of the effect of acupuncture therapy on the symptoms and immune indicators of ankylosing spondylitis. Front Neurol. 2026 Jan 12;16:1652356. https://doi.org/10.3389/fneur.2025.1652356

Background and objective	Ankylosing spondylitis (AS) is a chronic inflammatory disorder affecting sacroiliac joints, vertebral structures, paraspinal soft tissues, and peripheral joints. This study systematically investigated the mechanism of action of inflammatory factors underlying combined acupuncture therapy for AS, evaluating its impact on clinical manifestations and immune parameters.
Methods	A comprehensive literature search was conducted across PubMed, Embase, Cochrane Library, SinoMed, CNKI, Wanfang, and VIP databases using keywords related to acupuncture and AS. Randomized controlled trials (RCTs) were screened using EndNote X9. The Cochrane RoB 2 tool, GRADE assessed methodological quality. Meta-analysis was performed in Stata 15.0, employing mean difference (MD), standardized mean difference (SMD), or relative risk (RR) with fixed- or random-effects models based on I2 heterogeneity. Publication bias was evaluated via funnel plots and Egger's test, and subgroup analyses were conducted where applicable.
Results	**Fifty-two RCTs** were included, of which 20 exhibited low risk of bias. Meta-analysis demonstrated that acupuncture, alone or combined with medication, significantly reduced pain (VAS: MD = -1.26, 95% CI [-1.44, -1.09]), inflammatory markers (CRP: MD = -3.49, [-4.12, -2.85]; ESR: MD = -5.36, [-6.82, -3.89]), and morning stiffness duration (MD = -1.32, [-1.87, -0.78]). Improvements were also observed in BASDAI, BASFI, IL-1, IL-6, IL-17, TNF-α, and IgA levels. Heterogeneity was moderate to high (I2: 59.70-90.00%). Subgroup analysis indicated that intervention design and treatment duration contributed to heterogeneity. No significant publication bias was detected for primary outcomes, though morning stiffness showed potential bias. Sensitivity analyses confirmed the robustness of inflammatory marker results.
Conclusion	Acupuncture, particularly as an adjunct therapy, appears effective in alleviating clinical symptoms and reducing inflammatory activity in AS. However, high heterogeneity and variations in study design necessitate cautious interpretation. Further rigorously designed trials are warranted.

1.1.2. Cortés-Ladino 2023

Andrea Cortés-Ladino C, Augusto Arias-Ortiz W, Porras-Ramírez A. Effectiveness of Yoga and Acupuncture in Rheumatoid Arthritis: A Systematic Review and Meta-Analysis. Evid Based Complement Alternat Med. 2023 Oct 6;2023:9098442. https://doi.org/10.1155/2023/9098442

Introduction	Rheumatoid arthritis is a form of inflammatory joint disease; sometimes, patients need prolonged cycles of nonsteroidal anti-inflammatory drugs and/or glucocorticoids for symptomatology management in addition to traditional disease-modifying drugs and biologics. On some occasions, doses are increased without improvement of symptoms associated with side effects; this is why, on some occasions, patients seek other types of nonpharmacological therapies, such as alternative therapies.
Objective	To establish the effectiveness of alternative therapies such as yoga and acupuncture in rheumatoid arthritis by measuring disease activity with the disease activity score 28.
Methods	A systematic review of the literature and meta-analysis was performed; databases such as PubMed and Embase were used to find the best available evidence of randomized clinical trials from 2017 to 2021, two researchers independently screened and extracted the necessary data, and the methodological quality and the risk of bias were assessed through the Cochrane risk-of-bias tool. The articles that applied for meta-analysis were analyzed in Jamovi version 2.2 and EPIDATA version 3.1 software.
Results	Eight studies were included for qualitative analysis of which seven were included in the meta-analysis, with 550 rheumatoid arthritis patients, predominantly female. The meta-analysis evidenced a significant effect of yoga and acupuncture interventions in decreasing DAS 28 in patients with rheumatoid arthritis (four RCTs; SMD -2.51 95% CI [-2.89, -2.14], $p \leq 0.001$, I2 25.9%); in the yoga subgroup analysis, there was also evidence of improvement in the evaluated outcome (three RCTs; SMD -0.51 95% CI [-0.71, -0.30], $p \leq 0.001$, I2 0%).
Conclusion	It was demonstrated that the practice of yoga and acupuncture in patients with rheumatoid arthritis helped to decrease disease activity through the improvement of pain and joint inflammation; we recommend the implementation of this type of alternative intervention associated with conventional therapies for the management of patients diagnosed with rheumatoid arthritis.

1.1.3. Li 2022

Li H, Man S, Zhang L, Hu L, Song H. Clinical Efficacy of Acupuncture for the Treatment of Rheumatoid Arthritis: Meta-Analysis of Randomized Clinical Trials. Evid Based Complement Alternat Med. 2022 Apr 30;2022:5264977. https://doi.org/10.1155/2022/5264977

Objective	Acupuncture has been used by rehabilitation specialists as an adjunctive treatment for the symptomatic treatment of rheumatoid arthritis (RA). This meta-analysis aims to evaluate the efficacy of acupuncture in treating patients with RA.
Methods	A comprehensive search was conducted in CBM, CNKI, PubMed, CENTRAL, Web of Science, and Embase from their inception up to March 2022. All randomized controlled trials (RCTs) without the language restriction, concerning the patients with RA treated with acupuncture, were included. Two reviewers independently assessed the risk of bias with the Cochrane Risk of Bias Assessment tool. Weight mean difference (MD) and 95% CI were calculated, and data were pooled with random effects model.

Results	A total of **eleven RCTs involving 796 patients** with RA met the established inclusion criteria. This systematic review indicated the efficacy of acupuncture as an adjunctive treatment for patients with RA. Invasive acupuncture could reduce significantly in pain (MD = -1.00, 95% CI: -1.96 to -0.05, P=0.040), health assessment questionnaire (HAQ, MD = -0.20, 95% CI: -0.30 to -0.11, P < 0.001), physician global assessment (PhGA, MD = -0.98, 95% CI: -1.23 to -0.72, P < 0.001), tender joint count (TJC, MD = -1.24, 95% CI: -2.11 to -0.37, P=0.005), C-reactive protein (CRP, MD = -1.81, 95% CI: -3.32 to -0.29, P=0.019), and erythrocyte sedimentation rate (ESR, MD = -3.03, 95% CI: -5.80 to -0.26, P=0.032), while compared to control group. Laser acupuncture could reduce HAQ (MD = -0.15, 95% CI: -0.28 to -0.01, P=0.034), the RA quality of life questionnaire (RAQoL, MD = -2.32, 95% CI: -4.40 to -0.25, P=0.028), CRP (MD = -35.24, 95% CI: -36.49 to -33.99, P < 0.001), and interleukin-6 (IL-6, MD = -29.63, 95% CI: -49.34 to -9.92, P=0.003), while compared to control group. No adverse events associated with acupuncture were reported.
Conclusion	Available evidence suggests that acupuncture is beneficial for relieving pain and ameliorating quality of life and health index in patients with RA; thereby, it should be available as an adjunctive nonpharmacological treatment in rehabilitation programmes.

1.1.4. Lu 2022

Lu HL, Chang CM, Hsieh PC, Wang JC, Kung YY. The effects of acupuncture and related techniques on patients with rheumatoid arthritis: A systematic review and meta-analysis. J Chin Med Assoc. 2022 Mar 1;85(3):388-400. https://doi.org/10.1097/JCMA.0000000000000659

Background	One new type of acupuncture and related techniques (ACNRT) is increasingly used by rheumatoid arthritis (RA) patients to control their disease and improve their quality of life. However, the efficacy of using ACNRT in combination with western medicine (WM) for this purpose remains unknown.
Methods	Randomized controlled trials of ACNRT and WM treatments for RA from January 1, 2000, to January 31, 2021, were searched for in the databases PubMed, Embase, Medline, and the Cochrane Central Register of Controlled Trials, as well as in three Chinese databases: China National Knowledge Infrastructure, Wanfang Data, and Airiti Library. The primary outcomes consisted of inflammatory markers including C reactive protein (CRP), erythrocyte sedimentation rate (ESR), and rheumatoid factor. The secondary outcomes were clinical characteristics including pain visual analog scale (VAS) score, Disease Activity Score (DAS-28), swollen joints count (SJC), tender joints count (TJC), morning stiffness, and the results of a health assessment questionnaire. The three types of ACNRT used in the focal trials were acupuncture, moxibustion, and electro-acupuncture. Two qualified researchers extracted data from these trials' results and independently assessed their risk of bias. Statistical analyses were performed using Comprehensive Meta-Analysis V3 software.
Results	A total of **12 RCTs with 874 patients** met the inclusion criteria. As compared with the patients who received WM treatment alone, those who were given integrated ACNRT/WM treatment showed greater reductions in CRP (weighted mean difference [WMD]: -6.299; 95% CI: -9.082 to -3.517), ESR (WMD: -6.563; 95% CI: -8.604 to -4.522), VAS (WMD: -1.089; 95% CI: -1.575 to -0.602), DAS-28 (WMD: -0.633; 95% CI: -1.006 to -0.259), SJC (WMD: -1.921; 95% CI: -3.635 to -0.207), and TJC (WMD: -1.491; 95% CI: -2.941 to -0.042).
Conclusion	This meta-analysis of RA provides reliable evidence in favor of ACNRT plus WM. However, longer term, high-quality, repeatable, multicenter randomized controlled trials with larger sample sizes are needed.

1.1.5. Chen 2020 ☆

Chen Chaoyun. [Re-evaluation of the Treatment for Rheumatoid Arthritis with Acupuncture and Moxibustion]. Rheumatism and Arthritis. 2020. [212912].

Objective	To reevaluate the meta-analysis and systematic evaluation for the treatment of rheumatoid arthritis with acupuncture and moxibustion.
Methods	Systematic reviews on the treatment of rheumatoid arthritis published in CNKI, Wanfang, VIP, PubMed and Cochrane library were searched by computer from the establishment of the database to December 2019. The methodological quality and evidence level of the included studies were evaluated by AMSTAR scale and software GRADE Pro respectively.
Results	A total of **14 studies** were included, with AMSTAR score of 5□10, medium quality and low GRADE evidence level. The total effective rate of the treatment group was better than that of the control group, with no obvious advantage in morning stiffness, joint swelling, visual analog score, rheumatoid factor, erythrocyte sedimentation rate, C-reactive protein and other outcome indicators.
Conclusion	The quality of meta-analysis methodology in treating rheumatoid arthritis with acupuncture and moxibustion is medium and the quality of evidence level is low. However, based on the research progress in this field in recent years, it is worth trying to recommend acupuncture as a complementary alternative therapy to improve the clinical symptoms of patients with rheumatoid arthritis.

1.1.6. Seca 2019 ☆

Seca S , Miranda D , Cardoso D , Nogueira B , Greten HJ , Cabrita A , Alves M. Effectiveness of Acupuncture on Pain, Physical Function and Health-Related Quality of Life in Patients with Rheumatoid Arthritis: A Systematic Review of Quantitative Evidence. Chinese Journal of Integrative Medicine. 2019;25(9):704-709. [206384]. doi

Objective	To identify and synthesize the most recent available evidence of effectiveness of acupuncture on pain, physical function and health-related quality of life (HRQoL) in patients with rheumatoid arthritis (RA).
Methods	A comprehensive search of 12 Western and Chinese databases was undertaken from their inception up to end of 2016. Randomized controlled trials (RCTs), concerning patients with RA treated with needle acupuncture, written in English, Portuguese, German or Chinese were included. Primary outcomes included pain, physical function and HRQoL. Secondary outcomes included morning stiffness, functional impairment, number of tender and swollen joints and serum concentrations of inflamatory markers. Methodological quality was assessed by three independent reviewers using the standardized critical appraisal instrument from the Joanna Briggs Institute Meta-Analysis of Statistics Assessment and Review Instrument.
Results	Twenty-two studies met the inclusion criteria. Of those, 9 studies were excluded after assessment of their methodological quality. The remaining 13 original RCTs included 974 patients. Ten of these studies published in China, showed favorable statistical significant effects of acupuncture in relieving symptoms of RA compared with controls.
Conclusions	Evidence suggests that acupuncture interventions may have a positive effect in pain relief, physical function and HRQoL in RA patients. However, due to the heterogeneity and methodologic limitations of the studies included in this systematic review, evidence is not strong enough to produce a best practice guideline.

1.1.7. Wu 2014 (chinese literature) ★★

Wu Yan. [Meta-analysis of acupuncture and medicine in treating rheumatoid arthritis]. Gansu Journal of Traditional Chinese Medicine. 2014;11:69-71. [186970].

Objective	To compare clinical effects of acupuncture therapy and medicine (western medicine and herbs) in treating rheumatoid arthritis (RA).
Methods	CNKI, CBM, VIP and digital periodical database of Chinese medical association were searched, and randomized controlled trials about acupuncture therapy compared with medicine in treating RA were included. Data analysis was performed by RevMan 5. 0 software.
Results	**Ten pieces of articles** were included. Meta-analysis results showed that the difference had statistical meaning in cure rate [OR=2. 14, 95%CI (1. 65, 2. 78) and total effective rate [OR 3. 20, 95%CI (2. 23, 4. 59)] in the comparison between acupuncture therapy and medicine in treating RA.
Conclusion	**Domestic studies revealed us that cure rate and total effective rate of acupuncture therapy are superior to these of medicine**.

1.1.8. Mac Farlane 2012 Ø

Macfarlane Gj, Paudyal P, Doherty M, Ernst E, Lewith G, Macpherson H, Sim J, Jones Gt. a systematic review of evidence for the effectiveness of practitioner-based complementary and alternative therapies in the management of rheumatic diseases: rheumatoid arthritis. Rheumatology (Oxford). 2012;51(9):1707-13.[166565]

Objective	To critically review the evidence on the effectiveness of complementary therapies for patients with RA
Methods	Randomized controlled trials, published in English up to May 2011, were identified using systematic searches of bibliographic databases and searching of reference lists. Information was extracted on outcomes and statistical significance in comparison with alternative treatments and reported side effects. The methodological quality of the identified studies was determined using the Jadad scoring system. All outcomes were considered but with a focus on patient global assessment and pain reporting.
Results	Eleven eligible trials were identified covering seven therapies. **Three trials that compared acupuncture with sham acupuncture reported no significant difference in pain reduction between the groups but one out of two reported an improvement in patient global assessment. Except for reduction in physician's global assessment of treatment and disease activity reported in one trial, no other comparative benefit of acupuncture was seen**. There were two studies on meditation and one each on autogenic training, healing therapy, progressive muscle relaxation, static magnets and tai chi. None of these trials reported positive comparative effects on pain but some positive effects on patient global assessment were noted at individual time points in the healing therapy and magnet therapy studies. A small number of other outcomes showed comparative improvement in individual trials. There were no reports of major adverse events.
Conclusion	**The very limited evidence available indicates that for none of the practitioner-based complementary therapies considered here is there good evidence of efficacy or effectiveness in the management of RA**.

1.1.9. Jagua 2012 ∅

Jagua Gualdrón, André. Medicina alternativa en el tratamiento de la osteoartrosis y artritis reumatoide. Revisión sistemática de la literatura y meta-análisis. Rev. colomb. Reumato. 2012;19(4):234-44. [99710].

Antecedentes	Las medicinas y terapias alternativas son empleadas con frecuencia en los pacientesque padecen de osteoartrosis y artritis reumatoide como tratamientos únicos o alternativos. No se ha realizado una revisión sistemática que explore la mejor evidencia disponible, hasta laactualidad, sobre la eficacia de medicinas y terapéuticas alternativas de uso frecuente.
Objetivo	Analizar la evidencia disponible sobre el uso de las medicinas y terapéuticas alternativas(acupuntura, homeopatía, terapia neural, campos electromagnéticos, medicina ayurveda,cartílago de tiburón, osteopatía, yoga, meditación) en el manejo de pacientes con osteoartritisy artritis reumatoide.
Materiales y métodos	Se realizó una revisión sistemática de la literatura. La búsqueda se efectuóen las bases de datos Pubmed, Ovid, Cochrane library y LiLacs, además se incluyeron revisionessistemáticas y ensayos clínicos publicados entre los años 1998 y 2012 en idiomas inglés y español.Se realizó un análisis de calidad de los estudios utilizando el instrumento SIGN y se analizó lainformación con un enfoque cualitativo y cuantitativo. Se tuvieron en cuenta desenlaces clínicosy paraclínicos. Se realizó un análisis por subgrupos para la osteoartrosis y la artritis reumatoide.
Resultados	A través de la búsqueda se identificaron 11 estudios en los que se evaluaron la **acupuntura**,la homeopatía y la medicina ayurveda. No se encontró evidencia sobre el uso de otras delas alternativas terapéuticas evaluadas en esta revisión. La acupuntura mostró algunos beneficiosen el manejo de pacientes con osteoatrosis, sin embargo, no se encontraron comparaciones con analgésicos. Algunos geles homeopáticos tienen una eficacia similar al gel de piroxicam en el manejo del dolor en pacientes con osteoartrosis. Algunos medicamentos de la medicina ayurveda son superiores al placebo en el manejo de pacientes con osteoartrosis. El efecto de los tratamientos en pacientes con artritis reumatoide no mostró beneficios significativos.
Conclusión:	No existe evidencia que permita recomendar el uso del yoga, meditación, cartílago de tiburón, terapia de campos electromagnéticos y terapia neural en el manejo de pacientes con osteoartrosis y artritis reumatoide. **La acupuntura no es eficaz en el manejo de pacientes con artritis reumatoide**. Se requieren más estudios para evaluar la recomendación del uso de la acupuntura y de la medicina ayurveda en el manejo de pacientes con osteoartrosis.

1.1.10. Efthimiou P 2010 ★

Efthimiou P et al. Complementary and alternative medicine use in rheumatoid arthritis: proposed mechanism of action and efficacy of commonly used modalities. Rheumatol Int. 2009; 30(5):571-86.[155457]

Purpose	The objective of this study is to systematically review the proposed mechanisms of action and currently available evidence supporting the efficacy of CAM modalities in relieving signs and symptoms of RA.
Methods	The prevalence of CAM usage by RA patients is anywhere from 28% to 90%. Many published studies on CAM are based on animal models of RA and there is often insufficient evidence for the efficacy of CAM modalities in RA.
Results	**The existing evidence suggests that some of the CAM modalities, such as acupuncture**, herbal medicines, dietary omega-3 fatty acids, vitamins, and pulsed electromagnetic field show promising efficacy in **reducing pain**

Conclusion	While the use of CAM modalities for the treatment of RA continues to increase, rigorous clinical trials examining their efficacy are necessary to validate or refute the clinical claims made for CAM therapies.

1.1.11. Lee MS 2008 Ø

Lee MS, Shin BC, Ernst E. Acupuncture for rheumatoid arthritis: a systematic review. Rheumatology (Oxford). 2008 Dec;47(12):1747-53. [150004]

Purpose	The aim of this systematic review is to evaluate the available evidence, from randomized clinical trials (RCTs), of acupuncture for treating patients with RA.
Methods	Systematic searches were conducted on 17 databases up to April 2008 without the language restriction. All RCTs of acupuncture, with or without electrical stimulation or moxibustion, for patients with RA were considered for inclusion.
Results	A total of 236 potentially relevant studies were identified and **eight RCTs** were included. Four RCTs compared the effects of manual or electro-acupuncture with penetrating or non-penetrating sham acupuncture and failed to show specific effects of acupuncture on pain [n=88; weighted mean differences (WMD), 10 cm VAS —0.46; 95% CI —1.70, 0.77; P=0.46; heterogeneity: r2 = 0.19; x2 =2.38; P=0.30; /2 =16%] or other outcome measures. One RCT compared manual acupuncture with indomethacin and suggested favourable effects of acupuncture in terms of total response rate. Three RCTs tested acupuncture combined with moxibustion, vs conventional drugs and failed to show that acupuncture plus moxibustion was superior to conventional drugs in terms of response rate (n=345; RR 1.12; 95% CI 0.99, 1.28; P=0.08; heterogeneity: r2 =0.00; X2=1.34; P=0.51; /2 =0%), pain reduction (n=105; WMD, 10 cm VAS 1.53; 95% CI —0.57, 3.63; P=0.15; heterogeneity: r2=1.18; x2 =1.81; P=0.18; 12=45%) or joint swelling index (n=105; WMD, 10 cm VAS 0.25; 95% CI —1.31, 1.82; P=0.75; heterogeneity: r2 = 0.1 8; x 2 = 1.14; P=0.28; /2 =13%).
Conclusion	In conclusion, **penetrating or non-penetrating sham-controlled RCTs failed to show specific effects of acupuncture for pain control in patients with RA.**

1.1.12. Yi 2008 ★

Yi K, Wang YF, Tian JW, Yang KH, Ma B, Zhao FH, Zhao L. [Systematic review of acupuncture and moxibustion treatment of rheumatoid arthritis]. Gansu Sci Technol. 2008;24(17):144-6. [112597].

> ［目的 评价针灸治疗类风湿性关节炎的临床疗效和安全性. 方法 检索PubMed(1966-2008.5)、EMBASE (1974-2008.5)、Cochrane Library(2008年第1期)、中国生物医学文献数据库 (1978-2008.5)、中国期刊全文数据库 (1994-2008.5)、中文科技期刊全文数据库 (1989-2008.5)等数据库. 收集有关针灸治疗类风湿性关节炎的随机对照试验和/或半随机对照试验, 采用Handbook4.2.6推荐的方法评价纳入研究的质量, 对符合纳入标准的研究采用RevMan4.2.10进行Meta分析. 结果 共纳入6个研究(409例患者), 其中2篇为RCT,4篇为quais-RCT.Meta分析结果显示：针灸联合药物组与单纯药物组相比, 在类风湿因子变化、晨僵时间变化、双手的平均握力、血沉变化和有效率方面的差异有统计学意义, 而在关节肿胀指数、C-反应蛋白(CRP)、关节压痛指数等方面的差异无统计学意义；4个研究报道了不良反应, 总体来看两组相比较无统计学差异(P>0.5),2个研究报道针灸安全、有效, 无明显不良反应, 与其他疗法联合治疗具有协同作用. 结论 现有临床证据表明针灸联合药物治疗RA疗效优于单纯药物, 但鉴于纳入研究少、质量低, 使论证强度受到一定限制, 有必要进一步开展高质量、大样本随机临床对照试验评价其疗效和安全性.］

traduction automatique	
Objectif	Évaluer l'efficacité clinique du traitement d'acupuncture de la polyarthrite rhumatoïde et leur sécurité.

Méthodes	Nous avons cherché dans PubMed (1.966 à 2008,5), EMBASE (1.974 à 2.008,5), Cochrane Library (Issue 1, 2008), la base de données chinoise biomédicale Littérature (1978- 2008.5), China Academic Journal (1994 à 2008,5), la science chinoise et périodique base de données de la technologie de texte intégral (1.989 à 2.008,5) et d'autres bases de données. On a recueilli des informations sur le traitement d'acupuncture de l'arthrite rhumatoïde par essais contrôlés randomisés et / ou d'essais quasi-randomisés utilisant Handbook4. 2.6, la méthode recommandée pour évaluer la qualité des études incluses, l'étude a satisfait aux critères d'inclusion RevMan4.2.10; Une méta-analyse est adoptée.
Résultats	un total de **six études (409 patients),** dans lequel deux des RCT, 4 articles étaient-RCT. Les résultats de la méta-analyse montrent que le groupe acupuncture combinée aux drogues par rapport au groupe de drogue simple, les changements de facteur rhumatoïde, les changements dans la durée de la raideur matinale, les moyennes de différence de force de préhension de la main, la vitesse de sédimentation des érythrocytes et des changements de taux effectifs étaient statistiquement significatives, et l'indice de gonflement des articulations, la protéine C-réactive (CRP), et d'autres aspects de l'indice de sensibilité articulaire n'a pas été statistiquement significative; quatre études rapportent des événements indésirables, aucune différence significative entre les deux groupes de phase globale (P> 0,5), 2 études ont rapporté que l'acupuncture est sûr et efficace, sans effets indésirables significatifs, la thérapie d'acupuncture combinée avec d'autres thérapies ont un effet synergique.
Conclusions	Des preuves cliniques actuelles **suggèrent que l'acupuncture combinée avec un traitement médicamenteux est plus efficace que les médicaments seuls** dans RA, mais compte tenu du nombre d'études incluses, de leur faible qualité, la force des arguments est limitée, d'où la nécessité de développer des essais de haute qualité, un grand randomisé contrôlé essai clinique visant à évaluer l'efficacité et la sécurité].

1.1.13. Wang C 2008 ★

Wang C, de Pablo P, Chen X, Schmid C, McAlindon T. Acupuncture for pain relief in patients with rheumatoid arthritis: a systematic review. Arthritis Rheum. 2008 Sep 15;59(9):1249-56. [150936]

Purpose	To systematically review the efficacy of acupuncture on pain relief in patients with rheumatoid arthritis (RA).
Methods	We performed a comprehensive search of 12 western and Chinese databases and reference lists through March 2008. We included randomized controlled trials with pain as an end point, measured by tender joint count (TJC) or a pain scale. We also reviewed the effect of acupuncture on morning stiffness, erythrocyte sedimentation rate (ESR), and C-reactive protein (CRP) level. Study quality was assessed by Jadad score. Differences between treatment groups were pooled as mean or median change (P value).
Results	**Eight studies met eligibility criteria with a total of 536 subjects**. There were 4 placebo-controlled trials and 4 active-controlled trials. Average study duration was 11 weeks. Mean ± SD acupuncture points and sessions were 11 ± 8 and 42 ± 62, respectively. Average duration of needle insertion was 24 minutes. Six studies reported a decrease in pain for acupuncture versus controls; the mean or median changes of acupuncture-decreased TJC pain ranged from 1.5 to 6.5. In addition, 4 studies reported a significant reduction in morning stiffness (mean change —29 minutes), but the difference was nonsignificant versus controls. With regard to inflammatory markers, 5 studies observed a reduction in ESR (mean change —3.9 mm/hour) and 3 observed a CRP level reduction (mean change —2.9 mg/dl); only 1 study showed a significant difference for both ESR and CRP.

Conclusion	**Despite some favorable results in active-controlled trials, conflicting evidence exists in placebo-controlled trials concerning the efficacy of acupuncture for RA.**

1.1.14. Casimoro L 2005 ∅

Casimoro L, Barnsley L, Brosseau L, Milne S, Robinson VA, Tuqwell P, Wells G. Acupuncture and electroacupuncture for the treatment of rheumatoid arthritis. Cochrane Database Syst Rev.2005;(4):CD003788.[155334]

Purpose	To evaluate the effects of acupuncture or electroacupuncture on the objective and subjective measures of disease activity in patients with RA.
Methods	A comprehensive search of MEDLINE, EMBASE, PEDro, Current Contents , Sports Discus and CINAHL, initially done in September 2001, was updated in May 2005. The Cochrane Field of Rehabilitation and Related Therapies and the Cochrane Musculoskeletal Review Group were also contacted for a search of their specialized registries. Handsearching was conducted on all retrieved papers and content experts were contacted to identify additional studies. SELECTION CRITERIA: Comparative controlled studies, such as randomized controlled trials and controlled clinical trials in patients with RA were eligible. Trials published in languages other than French and English were not analyzed. Abstracts were excluded unless further data could be obtained from the authors. DATA COLLECTION AND ANALYSIS: Two independent reviewers identified potential articles from the literature search and extracted data using pre-defined extraction forms. Consensus was reached on all the extracted data. Quality was assessed by two reviewers using a five point validated tool that measured the quality of randomization, double-blinding and description of withdrawals.
Results	After the updated searches were conducted, five further potential articles were identified; however, these did not meet the inclusion criteria. **Two studies involving a total of 84 people** were included. One study used acupuncture while the other used electroacupuncture. In the acupuncture study, no statistically significant difference was found between groups for erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), visual analogue scale for patient's global assessment (VAS G), number of swollen joints and tender joints, general health questionnaire (GHQ), modified disease activity scale (DAS) or for the decrease in analgesic intake. Although not statistically significant, pain in the treatment group improved by 4 points on a 0-100mm visual analogue scale versus no improvement in the placebo group. In the second study, using electroacupuncture, a significant decrease in knee pain was reported in the experimental group, 24 hours post treatment, when compared to the placebo group (WMD: -2.0 with 95% CI -3.6,-4.0). A significant decrease was found also at four months post-treatment (WMD -0.2, 95% CI: -0.36, -0.04).
Conclusion	Although the results of the study on **electroacupuncture show that electroacupuncture may be beneficial to reduce symptomatic knee pain in patients with RA 24 hours and 4 months post treatment**, the reviewers concluded that the poor quality of the trial, including the small sample size preclude its recommendation. The reviewers further conclude that **acupuncture has no effect on ESR, CRP, pain, patient's global assessment, number of swollen joints, number of tender joints, general health, disease activity and reduction of analgesics**. These conclusions are limited by methodological considerations such as the type of acupuncture (acupuncture vs electroacupuncture), the site of intervention, the low number of clinical trials and the small sample size of the included studies.

1.1.15. Ter Riet 1989 ∅

Ter Riet G Et Al. Acupuncture and rheumatoid arthritis. Huisarts En Wetenschap. 1989;32:228-9.141254

> In a search through the literature on the effectiveness of acupuncture in rheumatoid arthritis only **three controlled clinical trials** were found. These trials are reviewed here. Study design is generally poor. Therefore, **no definitive conclusions can be drawn.** The effectiveness of acupuncture in rheumatoid arthritis should not be considered as proven.

1.2. Special Acupuncture Techniques

1.2.1. Comparison of acupuncture techniques

1.2.1.1. Wang 2026

Wang S, Xue YH, Liang LB, Li KP, Wu CQ. Comparative effectiveness of electroacupuncture and conventional acupuncture for rheumatoid arthritis pain: A network meta-analysis with emphasis on placebo control validity. J Integr Med. 2026;24(1):57–64. https://doi.org/10.1016/j.joim.2025.09.005

Background	Acupuncture is recognized as an alternative therapy for rheumatoid arthritis pain, but its efficacy evaluations are often confounded by variability in sham acupuncture techniques. The accurate selection of sham acupuncture controls, which are administered at either therapeutic acupuncture points or non-acupuncture points, is crucial for the validity of assessment outcomes.
Objective	To assess the efficacy of acupuncture in treating rheumatoid arthritis pain and identify the most effective acupuncture methods.
Methods	Databases including MEDLINE, Embase, PubMed, Cochrane Library, Scopus, Web of Science, China National Knowledge Infrastructure Database, Chinese Science and Technology Journal Database, and Wanfang Database were searched from inception to October 11, 2024 using keywords related to rheumatoid arthritis, acupuncture, electroacupuncture, and pain. Randomized controlled trials in adults with rheumatoid arthritis assessing pain using a visual analog scale and joint swelling by swollen joint count were included. Eligible trials compared electroacupuncture, conventional acupuncture, or sham acupuncture against standard pain medication. Two reviewers independently extracted data on study design, participant characteristics, interventions, and outcomes. Risk of bias was assessed using the Cochrane Risk of Bias 2 tool, and evidence certainty was evaluated using the confidence in network meta-analysis framework. A frequentist network meta-analysis with random-effect models was performed, reporting standardized mean differences and 95% confidence intervals.
Results	**Ten randomized controlled trials involving 704 participants** were included. Electroacupuncture showed the greatest pain reduction compared with conventional therapy and non-acupoint sham needling (SMD −1.42; 95% CI −1.87 to −0.98), followed by conventional acupuncture (SMD −1.11; 95% CI −1.49 to −0.73). Surface under the cumulative ranking curve values ranked electroacupuncture as the most effective intervention for pain reduction (97.7%), followed by conventional acupuncture (75.1%), non-acupoint sham acupuncture (29.1%), same-acupoint sham acupuncture (28.6%), and conventional therapy (19.5%).
Conclusion	Electroacupuncture demonstrated the highest efficacy for pain relief in rheumatoid arthritis. Same-acupoint sham acupuncture may underestimate the true effect of acupuncture and should not be used as a placebo control. Non-acupoint sham acupuncture appears to be a more valid control method for future clinical trials.

1.2.1.2. Wan 2022

Wan R, Fan Y, Zhao A, Xing Y, Huang X, Zhou L, Wang Y. Comparison of Efficacy of Acupuncture-Related Therapy in the Treatment of Rheumatoid Arthritis: A Network Meta-Analysis of Randomized Controlled Trials. Front Immunol. 2022 Mar 7;13:829409. https://doi.org/10.3389/fimmu.2022.829409

Background	The refractory, repetitive, and disabling characteristic of rheumatoid arthritis (RA) has seriously influenced the patients' quality of life, and makes it a major public health problem. As a classic complementary and alternative therapy, acupuncture is usually applied for RA combined with disease-modifying anti-rheumatic drugs (DMARDs). However, there are various types of acupuncture, and the curative effects are different in different acupuncture therapies. In this study, we evaluated the clinical efficacy of different acupuncture therapies combined with DMARDs in the treatment of RA.
Methods	The randomized controlled trials (RCTs) of acupuncture combined with DMARDs in the treatment of RA were searched in both English and Chinese database of PubMed, Cochrane Library, EMBASE, Web of Science, CNKI, VIP database, Wanfang, and SinoMED, up to October 2021. Literature screening, data extraction, and evaluation of the risk of bias were carried out independently by two researchers, and the data were analyzed by Stata14.2 and GeMTC 0.14.3 software.
Results	A total of **32 RCTs were included, including 2,115 RA patients**. The results of network meta-analysis were as follows: in terms of improving DAS28 score, Electro-acupuncture + DMARDs has the best efficacy. In terms of improving VAS score, Fire Needle + DMARDs showed the best efficacy. In terms of improving morning stiffness time, acupuncture-related therapies combined with DMARDs were not better than DMARDs alone in improving morning stiffness time in RA patients. In terms of reducing CRP and ESR, Fire Needle + DMARDs showed the best efficacy. In terms of reducing RF, Moxibustion + DMARDs has the best efficacy.
Conclusions	The comprehensive comparison of the outcome indicators in 8 different treatments indicates that electro-acupuncture combined with DMARDs is the best combined therapy in improving DAS28 score, while in terms of improving pain and serological markers, fire needle combined with DMARDs and moxibustion combined with DMARDs were the best combined therapies. However, it is impossible to find out which is better between fire needle and moxibustion due to the limited studies. Clinically, appropriate treatment should be selected according to the actual situation.

1.2.2. Electroacupuncture

1.2.2.1. Wang 2025

Wang S, Xue YH, Liang LB, Li KP, Wu CQ. Comparative effectiveness of electroacupuncture and conventional acupuncture for rheumatoid arthritis pain: A network meta-analysis with emphasis on placebo control validity. J Integr Med. 2025 Sep 26:S2095-4964(25)00142-6. https://doi.org/10.1016/j.joim.2025.09.005

Background	Acupuncture is recognized as an alternative therapy for rheumatoid arthritis (RA) pain, but its efficacy evaluations are often confounded by variability in sham acupuncture techniques. The accurate selection of sham acupuncture controls, which are administered at either therapeutic acupuncture points or non-acupuncture points, is crucial for the validity of assessment outcomes.
Objective	To assess the efficacy of acupuncture in treating RA pain and identify the most effective acupuncture methods.

Methods	Search strategy: Databases including MEDLINE, Embase, PubMed, Cochrane Library, Scopus, Web of Science, China National Knowledge Infrastructure Database, Chinese Science and Technology Journal Database, and Wanfang Database were searched from inception to October 11, 2024. Keywords included “rheumatoid arthritis,” “acupuncture,” “electroacupuncture,” and “pain.” Inclusion criteria: Randomized controlled trials (RCTs) in adults with RA that assessed pain using a visual analog scale and joint swelling by swollen joint count. Eligible trials compared electroacupuncture, conventional acupuncture, or sham acupuncture, against standard pain medication. Data extraction and analysis: Two reviewers independently extracted data on study design, participant characteristics, interventions and outcomes. Risk of bias was evaluated using the Cochrane Risk of Bias 2 tool, and evidence certainty was assessed via the confidence in network meta-analysis framework. A frequentist network meta-analysis with random-effect models was conducted, and standardized mean difference (SMD) and 95% confidence interval (CI) were reported.
Results	**Ten RCTs involving 704 participants** were analyzed. Electroacupuncture (SMD: -1.42; 95% CI: [-1.87, -0.98]) and conventional acupuncture (SMD: -1.11; 95% CI: [-1.49, -0.73]) outperformed conventional therapy and non-acupoint sham needling. Surface under cumulative ranking curve showed that electroacupuncture was most effective for pain reduction (97.7%), followed by conventional acupuncture (75.1%), non-acupoint sham (29.1%), same-acupoint sham (28.6%), and conventional therapy (19.5%).
Conclusion	Electroacupuncture demonstrated the highest efficacy for RA pain relief. Same-acupoint sham acupuncture may underestimate acupuncture's true effect and is not recommended as a placebo control. Non-acupoint sham acupuncture is a more valid control for future trials.

1.2.3. Moxibustion

1.2.3.1. Wen 2025

Wen J, Ma J, Xiao Q, Liu T, Sun Z. Comparing moxibustion strategies in rheumatoid arthritis: A systematic review and network meta-analysis. Eur J Integr Med. 2025 Jun;76:102449. https://doi.org/10.1016/j.eujim.2025.102449

Background	Rheumatoid arthritis (RA) is a highly prevalent chronic autoimmune disease worldwide. Moxibustion has increasingly been used in clinical practice as an effective treatment for RA. However, more comprehensive evidence is needed to determine optimal moxibustion strategies for RA management and guide clinical interventions.
Methods	This review conducted a literature search across eight databases, including PubMed, Embase, Web of Science, Cochrane Library, VIP, CBM, Wanfang Database, and CNKI. The Cochrane Risk of Bias tool 2 was used to assess the quality of the selected studies. Network meta-analysis (NMA) was conducted using R Studio 4.2.2 and STATA 17.0.

Results	A total of **78 clinical trials with 5896 participants** were included. The relative efficacy of nine moxibustion therapies was assessed. NMA data revealed that compared with conventional therapy (CVT, including Disease-modifying Antirheumatic Drugs, Nonsteroidal Anti-inflammatory Drugs, and glucocorticoids), heat-sensitive moxibustion plus CVT showed promising effects for clinical response (RR = 1.45, 95 % CI: 1.08, 2.06) and disease activity score 28 (DAS-28; mean difference [MD] = −0.98, 95 % CI: −1.81, −0.15). Moxa cone moxibustion (MCM) plus CVT was more effective than suspending moxibustion plus CVT in DAS-28 (MD = −0.48, 95 % CI: −0.83, −0.09). For the visual analog scale, MCM plus CVT was the most effective (MD = −1.59, 95 % CI: −2.08, −1.11), more effective than warm needle moxibustion (WNM) plus CVT (MD = −0.93, 95 % CI: −1.81, −0.05) and direct moxibustion plus CVT (MD = −1.49, 95 % CI: −2.81, −0.19). Indirect moxibustion (IM) plus CVT was most effective in reducing morning stiffness time (MD = −22.76, 95 % CI: −36.31, −7.23). WNM plus CVT and governor vessel moxibustion (GVM) plus CVT showed greater effects in reducing swollen joint count (MD = −2.37, 95 % CI: −3.23, −1.54) and lowering rheumatoid factor (MD = −0.68, 95 % CI: −1.58, 0.22). In reducing C-reactive protein, IM plus CVT was most effective (MD = −6.60, 95 % CI: −9.55, −3.95). GVM plus CVT had the lowest adverse reaction rate (3.33 %).
Conclusion	This NMA provides robust evidence supporting the combination of multiple moxibustion therapies with traditional RA treatments. Moxibustion may alleviate various RA symptoms. However, longer-term, high-quality, reproducible, multicenter randomized controlled trials with larger sample sizes are necessary to confirm these results and establish optimal treatment strategies.

1.2.3.2. Shen 2019

Shen B, Sun Q, Chen H, Li Y, Du X, Li H, Xu GY. Effects of moxibustion on pain behaviors in patients with rheumatoid arthritis: A meta-analysis. Medicine (Baltimore). 2019;98(30). [200511].

Background	Pain is the main symptom of patients with rheumatoid arthritis (RA). Reports of the effects of moxibustion on patients with rheumatoid arthritis have reached various conclusions. The aim of this meta-analysis was to evaluate the effect of moxibustion on pain in patients with RA.
Methods	A systematic search of MEDLINE, EMBASE, the Cochrane Library, and the Chinese databases Wan Fang Med Database, CNKI, and VIP (until November, 2018) was used to identify studies reporting pain (on a visual analogue scale (VAS)), erythrocyte sedimentation rate (ESR), C-reactive protein (CRP) and rheumatoid factor (RF) levels, response rate, and the ACR50 rate in patients with RA. Results were expressed as mean difference (MD) and 95% confidence intervals (CI).
Results	Six studies involving 281 participants were included. Moxibustion had significant effects on pain (VAS: MD = -0.53, 95% CI [-0.94, -0.12], P =.01). Moreover, moxibustion had effects on CRP (MD = -2.84, 95% CI [-5.13, -0.55], P =.01), ESR (MD = -8.44, 95% CI ([-13.19, -3.68], P =.0005), and RF (MD = -6.39, 95% CI [-18.57, 5.79], P =.30). Additionally, it had effects on response rate (n = 249, RR = 1.26, 95% CI [1.11, 1.43], P =.0004) and ACR50 rate (n = 140, RR = 1.44, 95% CI [1.11, 1.88], P =.007).
Conclusion	We found that moxibustion with Western medicine therapy is superior to Western medicine therapy alone for pain in patients with RA. Moxibustion had significant effects on pain in patients with RA, but the effects of moxibustion on inflammatory factors in RA were unclear.

1.2.3.3. Zhang 2015 ★

Zhang Xing-Hua, Zhu Bo-Wen, Zhao Bin-Yuan, Qin Xiao-Guang, Du Xiao-Zheng. [Meta-analysis on

randomized controlled clinical trials of acupuncture and moxibustion for rheumatoid arthritis]. Chinese Journal of Information on Traditional Chinese Medicine. 2015;2:42-46. [186953].

Objective	To systematically assess the effectiveness and safety of acupuncture and moxibustion for treatment of rheumatoid arthritis.
Methods	Articles were searched from databases, i. e. , CNKI, VIP, WanFang Data, CBM, Embase, and PubMed. Articles about RCT on acupuncture and moxibustion for rheumatoid arthritis and traditional medicine therapy were under meta-analysis.
Results	Totally **24 articles involving 2006 patients** were included. The results of meta-analysis indicated that the overall effective rate of treatment in the group receiving acupuncture and moxibustion was higher than that in the drug group, with statistical significance [OR=2. 73, 95%CI (2. 18, 3. 41), Z=8. 78, P<0. 000 01]. Sub-group analysis showed that: acupuncture and moxibustion showed statistical significance in decreasing serum RF levels compared with drug therapy [MD=-2. 92, 95%CI (-5. 60, -0. 25), P<0. 05]. Acupuncture and moxibustion showed statistical significance in decreasing serum ESR levels compared with drug therapy [MD=-2. 99, 95%CI (-4. 78, -1. 21), P<0. 05]. Acupuncture and moxibustion showed statistical significance in decreasing serum CPR levels compared with drug therapy [MD=-1. 44, 95%CI (-2. 44, -0. 44), P <0. 05].
Conclusion	**The overall effective rates of acupuncture and moxibustion for rheumatoid arthritis and the decreasing levels of RF, ESR, CRP are superior to drug therapy**, but it still needs larger samples, multi-center, and high quality RCT to verify.

1.2.3.4. Sun 2014 ∅

Sun ZL, Xu X, Du SZ, Jiang X. Moxibustion for treating rheumatoid arthritis: A systematic review. European Journal of Integrative Medicine 6 (2014) 621–630. [170077]

Purpose	The purpose of this systematic review was to evaluate the available evidence from randomized controlled trials(RCTs)of moxibustion for treating patients with rheumatoid arthritis(RA).
Methods	Seven Chinese and English data bases were searched to November 2013 from their inception. Eligible RCTs were included if moxibustion was used either alone or incombination with Western médicine for treating rheumatoid arthritis. Study selection, data extraction, and validation was performed independently by two reviewers. Cochrane criteria for risk of bias was used to assess the methodological quality of the trials.
Results	**Eight RCTs** met the inclusion criteria, and most were of low methodological quality. Meta-analysis showed favorable effects of moxibustion on the response rate, either alone [RR = 1.18, 95%CI (1.03, 1.35), p = 0.02; heterogeneity: Chi2 = 1.11, p = 0.77, I2 = 0%] or the combination with Western medicine therapy [RR = 1.28, 95%CI (1.12, 1.47), p = 0.0004; heterogeneity: Chi2 = 1.96, p = 0.58, I2 = 0%]. When compared with Western medicine therapy, Western medicine plus moxibustion therapy showed a favorable statistically significant effect on a reduction on American College of Rheumatology (ACR) 50 [RR = 1.57, 95%CI (1.25, 1.99), p = 0.0001; heterogeneity: Chi2 = 2.87, p = 0.58, I2 = 0%], whereas it failed to do so on American College of rheumatology (ACR) 20. Additionally, when compared with western medicine therapy alone, meta-analysis of three RCTs suggested favorable but no statistically significant effects of moxibustion plus western medicine on the control of disease activities of rheumatoid arthritis.
Conclusion	**It is difficult to draw firm conclusions on whether moxibustion is an effective intervention for treating RA due to the small sample size of eligible RCTs and the high risk of bias among the available RCTs.**

1.2.3.5. Choi TY 2011 ∅

Choi TY, Kim TH, Kang JW, Lee MS, Ernst E. **Moxibustion** for rheumatic conditions: a systematic review and meta-analysis. Clin Rheumatol. 2011;30(7):937-45.[154605]

Purpose	The aim of this review is to summarize and critically evaluate the trials testing effectiveness of moxibustion for major rheumatic conditions.
Methods	Fourteen databases were searched from their inception through May 2010,without language restriction. Randomized clinical trials (RCTs) were included if moxibustion was used as the sole treatment or as a part of a combination therapy with conventional drugs for rheumatic conditions. Cochrane criteria were used to assess the risk of bias. A total of 14 RCTs met our inclusion criteria. Ali were of low methodological quality.
Results	The meta-analysis of the eight RCTs (**three trials and 282 patients for rhumatoid arthritis**) **suggested favorable effects of moxibustion on the response rate compared with conventional drug therapy** [n=631;relative risk (RR), 1.13; 95% confidence intervals (Cis),1.02 to 1.26; P=0.02] with high heterogeneity (P=58%). The results of meta-analysis of the **six RCTs suggested favorable effects of moxibustion plus drug therapy on the response rate compared with conventional drug therapy alone** (n=433; RR, 1.25; 95% Cls, 1.09 to 1.43; P=0.02) with high heterogeneity (P=62%).
Conclusion	This systematic review fails to provide conclusive evidence for the effectiveness of moxibustion compared with drug therapy in rheumatic conditions.

1.2.4. Fire Needle

Article connexe : - Technique de l'aiguille de feu -

1.2.4.1. Zhang 2017 ☆

Zhang Kai. [Systematic Evaluation and GRADE Rating of Fire Needling Treatment for Rheumatoid Arthritis] Shanghai Journal of Acupuncture and Moxibustion. 2017;36(4):484-489. [181532].

Objective	To assess the quality of literature on randomized or semirandomized clinical controlled trials of fire needling treatment for rheumatoid arthritis.
Method	A computer search assisted by a manual search was conducted of CBM (1979—2015), CNKI (1979—2015), VIP (1989—2015), Wanfang digital periodical group (1998—2015), PubMed (1966—2015), Embase (1980—2015) and Cochrane Library (Issue4, 2015). Randomized or semirandomized clinical controlled trials were included. Two reviewers extracted data independently and checked them each other. The methodological quality of research design, diagnostic and inclusion/exclusion criteria, intervening measures for fire needling/control group, efficacy evaluation criteria and observation time points, and adverse reaction reporting were assessed according to Cochrane Reviewers' Handbook 4.2.8. A meta-analysis was made of homogeneity studies. The GRADE approach rated system outcomes.
Result	A total of **seven randomized controlled trials were included**. Four included studies made a comparison between fire needling and medication (analgesic+ ant rheumatic) groups and there was no statistically significant difference in the efficacy rate [RR=1.22, 95%CI (0.97, 1.52)].GRADE rating was very low. Internationally accepted diagnostic criteria and general evaluation methods were still not used universally.
Conclusion	The current clinical reports show that fire needling treatment has some effect on rheumatoid arthritis, but it still needs related evidence support.

1.2.5. TENS

1.2.5.1. Brosseau 2003 (hand) ★

Brosseau L, Judd MG, Marchand S, Robinson VA, Tugwell P, Wells G, Yonge K. Transcutaneous electrical nerve stimulation (TENS) for the treatment of rheumatoid arthritis in the hand. Cochrane Database Syst Rev. 2003:CD004377.[141488]

Background	Rheumatoid arthritis (RA) is a chronic, inflammatory, system disease. It commonly affects the small peripheral joints (such as fingers and wrist). The main goals of intervention for RA are preventing joint deformity, preserving joint function, and reducing inflammation and pain. Transelectrical nerve stimulation (TENS) is a form of electrotherapy and is thought to produce analgesia according to the gate control theory.
OBJECTIVES	To determine the efficacy and safety of TENS in the treatment of RA of the hand. The primary outcomes of interest were relief of grip pain and resting pain intensity, relief of joint tenderness, number of tender joints and patient assessment of disease. The secondary objective was to determine the most effective mode of TENS application in pain control.Search Strategy: we searched for relevant studies, in English, in the Cochrane field of physical and related therapies, the Cochrane Controlled Trials Register, MEDLINE, EMBASE, HEALTHSTAR, Sports Discus, CINAHL, Current Contents, and the PEDro database, up to October 2002. Selection Criteria: two independent reviewers selected the trials that met predetermined inclusion criteria. Data Collection And Analysis: study results were extracted by two independent reviewers. Continuous outcomes were analyzed by weighted mean difference (WMD) using a fixed effects model.
Main Results	**Three RCTs, involving 78 people**, were included in this review. AL-TENS and C-TENS were compared to placebo and to each other. Administration of 15 minutes of AL-TENS a week, for 3 weeks, resulted in a significant decrease in rest pain (67% relative benefit, 45 points absolute benefit on 100 mm VAS scale) but not in grip pain compared to placebo. AL-TENS did result in a clinical beneficial improvement in muscle power scores with a relative difference of 55%, and an absolute benefit of 0.98, compared to placebo. No significant difference was found between one 20-minute treatment duration of C-TENS versus AL-TENS, or C-TENS versus placebo on decrease in mean scores for rest pain or grip pain, or on the number of tender joints. Results showed a statistically significant reduction in joint tenderness, but no clinical benefit from C-TENS over placebo in relief of joint tenderness. No statistically significant difference was shown between 15 days of treatment with C-TENS or AL-TENS in relief of joint pain, although there was a clinically important benefit of C-TENS over AL-TENS on patient assessment of change in disease (risk difference 21%, NNT 5).
Reviewer's Conclusions	There are conflicting effects of TENS on pain outcomes in patients with RA. **AL-TENS is beneficial for reducing pain intensity and improving muscle power scores over placebo while, conversely**, C-TENS resulted in no clinical benefit on pain intensity compared with placebo. However **C-TENS resulted in a clinical benefit on patient assessment of change in disease over AL-TENS**. More well designed studies with a standardized protocol and adequate number of subjects are needed to fully conclude the effect of C-TENS and AL-TENS in the treatment of RA of the hand.

1.2.6. Bee Acupuncture

1.2.6.1. Wei 2018

Wei Yan-Ying , Tang Chun-Zhi □ Gu Yu-Mei , Wei Su-Fen. [Bee-sting Therapy for Rheumatoid Arthritis Systematic Review and Meta-analysis]. Journal of Basic Chinese Medicine. 2018;24(8):1113. [181091].

Objective	To evaluate the curative effect and status of Bee-sting therapy in the treatment of Rheumatoid Arthritis.
Methods	A systematic retrieval has been taken in Chinese National Knowledge Infrastructure, Chinese biomedical literature database, VIP journal full text database, wanfang database, MEDLINE, Cochrane Library and Springer. Collect RCT literatures concerning the treatment of Rheumatoid Arthritis with Bee-sting therapy. Two reviewers independently screened Literature extracted data and assessed the risk of bias of included studies. Then meta-analysis was conducted by RevMan 5. 3 software.
Results	A total of 8 RCTs, involving 496 patients were included , the results of Meta-analyses indicated that compared with therapy of western medicine, Bee-sting therapy for RA was superior in the total effective rate (OR=3.37, 95% CI (1.95,5.84), P=0.0001), ESR (MD= -4.25, 95% CI (-7.44, -1.06), P=0. 009), and CRP (MD= - 3. 12, 95% CI (-6. 29□-0. 06), P=0. 05) with significant differences.
Conclusion	According to the results of the meta-analysis, Bee-sting therapy for Rheumatoid Arthritis is better than the western medicine treatment. Due to the poor quality and high possibility of bias of the included studies , more well-designed multicentered RCTs should be performed.

1.2.6.2. Lee 2014 ★

Lee JA, Son MJ, Choi J, Jun JH, Kim JI, Lee MS. Bee venom acupuncture for rheumatoid arthritis: a systematic review of randomised clinical trials. BMJ Open. 2014;4(11):e006140. [001]

Objectives	To assess the clinical evidence for bee venom acupuncture (BVA) for rheumatoid arthritis (RA).
Methods	Design: Systematic review of randomised controlled trials (RCTs). Setting: We searched 14 databases up to March 2014 without a language restriction. Participants: Patients with RA. Intervention: BVA involved injecting purified, diluted BV into acupoints. We included trials on BVA used alone or in combination with a conventional therapy versus the conventional therapy alone. Primary outcomes: Morning stiffness, pain and joint swelling Secondary outcomes: Erythrocyte sedimentation rate (ESR), C reactive protein (CRP), rheumatoid factor, the number of joints affected by RA and adverse effects likely related to RA.
Results	A total of 304 potentially relevant studies were identified; only **one RCT** met our inclusion criteria. Compared with placebo, BVA may more effectively improve joint pain, swollen joint counts, tender joint counts, ESR and CRP but was not shown to improve morning stiffness.
Conclusion	**There is low-quality evidence**, based on one trial, that BVA can significantly reduce pain, morning stiffness, tender joint counts, swollen joint counts and improve the quality of life of patients with RA compared with placebo (normal saline injection) control. However, the number of trials, their quality and the total sample size were too low to draw firm conclusions.

1.2.7. Laser Acupuncture

1.2.7.1. Lourinho 2023

Lourinho I, Sousa T, Jardim R, Pinto AC, Iosimuta N. Effects of low-level laser therapy in adults with rheumatoid arthritis: A systematic review and meta-analysis of controlled trials. PLoS One. 2023 Sep 8;18(9):e0291345. https://doi.org/10.1371/journal.pone.0291345.

Backgound	Rheumatoid arthritis (RA) is an inflammatory, systemic and chronic disease that mainly affects the joints. It is characterized mainly by pain, edema and joint stiffness, which can lead to significant loss of functional capacity and quality of life. Several physical therapy resources are used in the treatment of AR, such as low-level laser therapy (LLLT) and its analgesic and anti-inflammatory effects. However, the efficacy of LLLT in AR is still controversial. The objective of this study is to evaluate the efficacy of low-level laser therapy in adults with RA.
Methods	We searched MEDLINE, EMBASE, CENTRAL, PEDro, LILACS, IBECS, CUMED, SCIELO and ClinicalTrials.gov. Two researchers independently selected studies, extracted data, evaluated the risk of bias and assessed the certainty of evidence using GRADE approach. Disagreements were resolved by a third author. Meta-analyses were performed.
Results	Currently available evidence was from **18 RCTs, with a total of 793 participants**. We found low-quality evidence suggesting there may be no difference between using infrared laser and sham in terms of pain, morning stiffness, grip strength, functional capacity, inflammation, ROM, disease activity and adverse events. The evidence is very uncertain about the effects of red laser compared to sham in pain, morning stiffness. The evidence is also very uncertain about the effects of laser acupuncture compared to placebo in functional capacity, quality of life, range of motion and inflammation.
Conclusions	Thus, infrared laser may not be superior to sham in RA patients. There is insufficient information to support or refute the effectiveness of red laser, laser acupuncture and reflexology for treating patients with RA.

1.2.7.2. Brosseau 2005 ★

Brosseau L1, Robinson V, Wells G, Debie R, Gam A, Harman K, Morin M, Shea B, Tugwell P. Low level laser therapy (Classes I, II and III) for treating rheumatoid arthritis. Cochrane Database Syst Rev. 2005 Oct 19;(4):CD002049.[141490]

Background	Rheumatoid arthritis (RA) affects a large proportion of the population. Low Level Laser Therapy (LLLT) was introduced as an alternative non-invasive treatment for RA about ten years ago. LLLT is a light source that generates extremely pure light, of a single wavelength. The effect is not thermal, but rather related to photochemical reactions in the cells. The effectiveness of LLLT for rheumatoid arthritis is still controversial. This review is an update of the original review published in October 1998.

Objectives	To assess the effectiveness of LLLT in the treatment of RA. Search Strategy: we initially searched MEDLINE, EMBASE (from 1998), the registries of the Cochrane Musculoskeletal Group and the field of Rehabilitation and Related Therapies as well as the Cochrane Central Register of Controlled Trials (CENTRAL) up to June 2001. This search has now been updated to include articles published up to June 2005. Selection Criteria: following an a priori protocol, only randomized controlled trials of LLLT for the treatment of patients with a clinical diagnosis of RA were eligible. Abstracts were excluded unless further data could be obtained from the authors. Data Collection And Analysis: two reviewers independently selected trials for inclusion, then extracted data and assessed quality using predetermined forms. Heterogeneity was tested using chi-squared. A fixed effects model was used throughout for continuous variables, except where heterogeneity existed, in which case, a random effects model was used. Results were analyzed as weighted mean differences (WMD) with 95% confidence intervals (CI), where the difference between the treated and control groups was weighted by the inverse of the variance. Dichotomous outcomes were analyzed with relative risks.
Main Results	A total of **222 patients were included in the five placebo-controlled trials**, with 130 randomized to laser therapy. Relative to a separate control group, LLLT reduced pain by 1.10 points (95% CI: 1.82, 0.39) on visual analogue scale relative to placebo, reduced morning stiffness duration by 27.5 minutes (95%CI: 2.9 to 52 minutes) and increased tip to palm flexibility by 1.3 cm (95% CI: 0.8 to 1.7). Other outcomes such as functional assessment, range of motion and local swelling did not differ between groups. There were no significant differences between subgroups based on LLLT dosage, wavelength, site of application or treatment length. For RA, relative to a control group using the opposite hand, there was no difference observed between the control and treatment hand for morning stiffness duration, and also no significant improvement in pain relief RR 13.00 (95% CI: 0.79 to 214.06). However, only one study was included as using the contralateral limb as control.
Authors' Conclusions	**LLLT could be considered for short-term treatment for relief of pain and morning stiffness for RA patients,** particularly since it has few side-effects. Clinicians and researchers should consistently report the characteristics of the LLLT device and the application techniques used. New trials on LLLT should make use of standardized, validated outcomes. Despite some positive findings, this meta-analysis lacked data on how LLLT effectiveness is affected by four important factors: wavelength, treatment duration of LLLT, dosage and site of application over nerves instead of joints. There is clearly a need to investigate the effects of these factors on LLLT effectiveness for RA in randomized controlled clinical trials.

1.3. Special Clinical Forms

1.3.1. Inflammatory Rheumatic Diseases

1.3.1.1. Lautenschlager 1997 Ø

Lautenschläger J. [Acupuncture in treatment of inflammatory rheumatic diseases]. Z Rheumatol. 1997;56(1):8-20. [169321].

Seventeen studies were examined with regard to efficacy and scientific quality of acupuncture in rheumatoid arthritis, spondarthropathy, lupus erythematosus, local and progressive systemic scleroderma. **Acupuncture cannot be recommended for treatment of these diseases**. By far, the most studies examined failed to show sufficient quality.

1.4. Mechanistic systematic reviews

1.4.1. Li 2026 (ST36)

Li Y, Guo Y, Song C, Yang Q, Xu F. The Analgesic Effects and Anti-Inflammatory Mechanisms of Acupuncture at Zusanli (ST36) in Animal Models of Rheumatoid Arthritis: Systematic Review and Meta-Analysis. J Pain Res. 2026;19:623197. https://doi.org/10.2147/JPR.S623197

Purpose	This study aimed to systematically evaluate the analgesic and anti-inflammatory effects of isolated acupuncture at Zusanli (ST36) in animal models of rheumatoid arthritis (RA), providing evidence-based insights for clinical translation and mechanism research.
Methods	PubMed, Web of Science, and Embase were searched from inception to December 2025 for controlled trials of standalone ST36 acupuncture in RA animals. Two reviewers independently screened studies, extracted data, assessed risk of bias, and meta-analyses were performed via RevMan 5.4 and Stata 18.0.
Results	**Twenty-four studies** were included. ST36 acupuncture significantly elevated paw withdrawal latency(PWL), tail flick latency(TFL), ear thermal pain threshold, paw withdrawal threshold (PWT) and knee joint pressure pain threshold (all P<0.0001), increased mast cell degranulation rate (MD=35.06, 95% CI 8.46-61.67, P=0.010), reduced knee joint circumference (MD=-1.62, 95% CI -2.16–1.09) and paw swelling degree (MD=-0.09, 95% CI -0.14–0.04), upregulated knee joint surface temperature (MD=0.12, 95% CI 0.08-0.17), and downregulated tumor necrosis factor-alpha (TNF-α) (SMD=-2.25),interleukin-1 beta (IL-1β) (SMD=-2.12) and interleukin-6 (IL-6) (SMD=-1.97) (all P<0.00001). No significant difference was found in synovial tissue histopathological score (P=0.16). High heterogeneity existed in partial outcomes; sensitivity analysis confirmed most results were robust except paw swelling degree, and publication bias was detected (P<0.05).
Conclusion	Isolated acupuncture at ST36 exerts significant analgesic and anti-inflammatory effects in RA animal models, potentially mediated by regulating inflammatory cytokines and immune cells. However, methodological quality limitations and publication bias restrict the findings, requiring validation by high-quality future studies.

1.4.2. Ma 2026 (moxibustion)

Ma J, Zhao Y, Liu S, Zhang D, Lu Z, Qiu Y, Wang Y, Qiu G, Sun Z. Moxibustion with Artemisia argyi H.Lév. & Vaniot in rheumatoid arthritis animal models: A meta-analysis linking clinical efficacy to inflammasome and cytokine signaling mechanisms. J Ethnopharmacol. 2026;362:121302. https://doi.org/10.1016/j.jep.2026.121302

Background	Moxibustion, a traditional Chinese healing method, uses mugwort (Artemisia argyi H.Lév. & Vaniot) to apply heat to specific points, treating conditions like “Bi Zheng”, which is akin to rheumatoid arthritis (RA). According to traditional theory, its therapeutic actions are attributed to warming the meridians and regulating the flow of Qi and blood.
Objective	To quantitatively evaluate the therapeutic efficacy of moxibustion and to map its anti-arthritic mechanisms in animal models of RA.

Methods	The protocol was registered with PROSPERO (CRD42024503829) and reported according to PRISMA 2020. Eight databases were searched through 28 July 2025 for randomized controlled animal studies comparing moxibustion with the control in RA models. The primary outcome was arthritis severity, assessed by the arthritis index, paw volume, and histopathological score. Secondary endpoints included serum or tissue levels of pro-inflammatory cytokines (IL-1β, TNF-α, IL-6), immunomodulatory cytokines (IL-10, IL-4), and key signaling proteins (NF-κB, NLRP3, TLR4, MyD88). The SYRCLE tool was used to assess the risk of bias.
Results	Seventy-three studies were included. Meta-analysis showed that moxibustion significantly reduced arthritis severity (arthritis index: SMD -3.72, 95% CI -4.25 to -3.20; paw volume: SMD -4.59, 95% CI -5.54 to -3.63; histopathological score: SMD -2.24, 95% CI -2.80 to -1.67). Moxibustion also lowered the levels of pro-inflammatory cytokines: IL-1β (SMD -3.52, 95% CI -4.19 to -2.86), IL-6 (SMD -3.17, -4.17 to -2.16), and TNF-α (SMD -3.38, -3.97 to -2.79) and suppressed key signaling pathways, including NF-κB (SMD -2.29, 95% CI -3.20 to -1.37), NLRP3 (SMD -1.74, 95% CI -2.49 to -0.99), TLR4 (SMD -6.72, 95% CI -12.54 to -0.90), and MyD88 (SMD -9.16, 95% CI -15.28 to -3.04).
Conclusion	This meta-analysis suggests that moxibustion alleviates arthritis severity and histopathological damage in RA animal models, potentially through modulating inflammatory networks and inhibiting key pathways such as NF-κB and NLRP3. These findings provide preclinical evidence supporting the rationale for future clinical investigation of moxibustion as a potential adjunct therapy for RA.

2. Overviews of Systematic Reviews

2.1. Ramos 2018

Ramos A, Domínguez J, Gutiérrez S. Acupuncture for rheumatoid arthritis. Medwave. 2018;18(6).[181399] .

Introduction	Rheumatoid arthritis is the most common inflammatory arthritis worldwide. Chronic pain leads patients to use complementary therapies, including acupuncture.
Methods	To answer this question we used Epistemonikos, the largest database of systematic reviews in health, which is maintained by screening multiple information sources, including MEDLINE, EMBASE, Cochrane, among others. We extracted data from the systematic reviews, reanalyzed data of primary studies, conducted a meta-analysis and generated a summary of findings table using the GRADE approach.
Results and conclusions	We identified 7 systematic reviews including 20 studies overall, all of them randomized trials. We concluded the use of acupuncture probably has little or no impact in rheumatoid arthritis.

2.2. Ernst 2011

Ernst E, Posadzki P. Complementary and alternative medicine for rheumatoid arthritis and osteoarthritis: an overview of systematic reviews. Curr Pain Headache Rep. 2011;15(6):431-7. [141948].

Objective	This review critically evaluates the literature on complementary and alternative medicine (CAM) as treatment options for rheumatoid arthritis and osteoarthritis.

Design	Electronic databases were searched to identify all relevant systematic reviews of the effectiveness of CAM in rheumatoid arthritis and osteoarthritis published between January 2010 and January 2011. Reviews were defined as systematic if they included explicit and repeatable inclusion and exclusion criteria for studies. Their methodological quality was assessed using the Oxman criteria for systematic reviews.
Results	Five systematic reviews met our inclusion criteria. They all arrived at cautious conclusions. Four reviews were of high quality and one was burdened with high risk of bias.
Conclusions	The evidence to support the effectiveness of CAM as a treatment option for rheumatoid arthritis and osteoarthritis is ambiguous.

3. Clinical Practice Guidelines

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

3.1. British Society for Rheumatology (BSR, UK) 2026 Ø

Scott IC, Smith TM, Babatunde O, Barker C, Battista S, Beesley R, Beesley R, Birkinshaw H, Brooke M, Chaplin H, Chapman L, Ciurtin C, Dale J, Dockrell D, Dures E, Harrison K, Holt S, Jani M, McCarron M, Mallen CD, O'Connor A, Pidgeon C, Pratt D, Prior Y, Raza K, Rutter-Locher Z, Sharma S, Shaw K, Tsigarides J, Xenophontos M, Shenker NG. The 2026 British Society for Rheumatology guideline for pain management in people with inflammatory arthritis. Rheumatology (Oxford). 2026 Jun 30;65(7):keag320. https://doi.org/10.1093/rheumatology/keag320

Recommendation 22: Specific complementary therapies [including acupuncture] are not currently recommended to manage pain in adults, children and young people with IA, due to insufficient evidence to determine their efficacy (GRADE 2C; SoA 96.4%).

Supporting evidence:

- 217. Trinh K, Zhou F, Belski N, Deng J, Wong CY. The Effect of Acupuncture on Hand and Wrist Pain Intensity, Functional Status, and Quality of Life in Adults: A Systematic Review. Med Acupunct. 2022 Feb 1;34(1):34-48. https://doi.org/10.1089/acu.2021.0046
- 218. Seca S, Miranda D, Cardoso D, Nogueira B, Greten HJ, Cabrita A, Alves M. Effectiveness of Acupuncture on Pain, Physical Function and Health-Related Quality of Life in Patients with Rheumatoid Arthritis: A Systematic Review of Quantitative Evidence. Chin J Integr Med. 2019 Sep;25(9):704-709. https://doi.org/10.1007/s11655-018-2914-x
- 219. Lu HL, Chang CM, Hsieh PC, Wang JC, Kung YY. The effects of acupuncture and related techniques on patients with rheumatoid arthritis: A systematic review and meta-analysis. J Chin Med Assoc. 2022 Mar 1;85(3):388-400. https://doi.org/10.1097/jcma.0000000000000659
- 220. Feng Y, Zhang R, Zhao Z, He Y, Pang X, Wang D, Sun Z. Efficacy and safety of electroacupuncture combined with medication for rheumatoid arthritis: A systematic review and meta-analysis. Heliyon. 2023 Feb 26;9(3):e14014. https://doi.org/10.1016/j.heliyon.2023.e14014
- 221. Li H, Man S, Zhang L, Hu L, Song H. Clinical efficacy of acupuncture for the treatment of rheumatoid arthritis: meta-analysis of randomized clinical trials. Evid Based Complement Altern Med ECAM. 2022;2022:5264977–12. https://doi.org/10.1155/2022/5264977
- 222. Ramos A, Dominguez J, Gutierrez S. Acupuncture for rheumatoid arthritis. Acupunt Para El Trat Artritis Reum. 2018;18:e7284.https://doi.org/10.5867/medwave.2018.06.7283

3.2. American College of Rheumatology (ACR) 2022 ⊕

2022 American College of Rheumatology (ACR) Guideline for Exercise, Rehabilitation, Diet, and Additional Integrative Interventions for Rheumatoid Arthritis. Guideline Summary. https://www.rheumatology.org/Portals/0/Files/Integrative-RA-Treatment-Guideline-Summary.pdf

acupuncture (+, conditional recommendations)

3.3. Haute Autorité de Santé (France) 2007 ⊕

Polyarthrite rhumatoïde : aspects thérapeutiques hors médicaments et chirurgie – aspects médico-sociaux et organisationnels. Paris: Haute Autorité de Santé (HAS) 2007. Argumentaire, Recommandations.

L'acupuncture peut être proposée comme traitement adjuvant de la douleur chronique (accord professionnel).
L'efficacité de l'acupuncture n'apparaît pas spécifiquement démontrée dans le cadre de la PR, au vu des données actuelles de la littérature.

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