Table des matières

Chronic Kidney Disease

Néphropathies - insuffisance rénale : évaluation de l'acupuncture

1. Systematic Reviews and Meta-Analysis

1.1. Generic Acupuncture

1.1.1. Liu 2024

Liu S, Zhang F, Bai Y, Huang L, Zhong Y, Li Y. Therapeutic effects of acupuncture therapy for kidney function and common symptoms in patients with chronic kidney disease: a systematic review and meta-analysis. Ren Fail. 2024 Dec;46(1):2301504. https://doi.org/10.1080/0886022X.2023.2301504

Purpose	The number of clinical reports of acupuncture therapy in chronic kidney disease (CKD) is gradually increasing. This systematic review and meta-analysis aim to examine the therapeutic role of acupuncture therapy in kidney function and common symptoms in CKD patients.
Methods	We searched Embase, PubMed, Scopus, Web of Science, China National Knowledge Infrastructure, WanFang, and WeiPu for randomized controlled trials comparing acupuncture treatment with control or placebo groups. We assessed the effect of acupuncture therapy in CKD patients using a meta-analysis with the hartung-knapp-sidik-jonkman random effects model. In addition, we visualized keyword co-occurrence overlay visualization with the help of VOSviewer software to describe the research hotspots of acupuncture therapy and CKD.
Results	A total of **24 studies involving 1494 participants** were included. Compared to the control group, acupuncture therapy reduced serum creatinine levels (standardized mean difference [SMD]: -0.57; 95% CI -1.05 to -0.09) and relieved pruritus (SMD: -2.20; 95% CI -3.84, -0.57) in patients with CKD, while the TSA showed that the included sample size did not exceed the required information size. The included studies did not report acupuncture-related adverse events.
Conclusions	Acupuncture is an effective and safe treatment for improving kidney function and relieving pruritic symptoms in patients with CKD, but the very low evidence may limit this conclusion. The TSA suggests that high-quality trials are needed to validate the efficacy of acupuncture therapy.

1.1.2. Chu 2022

Chu SWF, Ng WJ, Yeam CT, Khan RQ, Low LL, Quah JHM, Foo WYM, Seng JJB. Manipulative and body-based methods in chronic kidney disease patients: A systematic review of randomized controlled trials. Complement Ther Clin Pract. 2022 Aug;48:101593. https://doi.org/10.1016/j.ctcp.2022.101593

Background and purpose	Among chronic kidney disease (CKD) patients, manipulative and body-based methods (MBM) have demonstrated efficacy in improving symptoms such as fatigue. This review aims to summarize the efficacy and safety of MBM among CKD patients.
Methods	A systematic review was performed in PubMed, Embase, Scopus, CINAHL, CENTRAL and PsycInfo. Randomised controlled trials (RCTs) which evaluated the use of MBM among adult CKD patients were included. The grading of recommendations, assessment, development, and evaluation (GRADE) approach was used to determine the risk of bias and certainty of evidence. The efficacy of each MBM was determined by reduction in symptom severity scores. All adverse reactions were documented.
Results	Of 8529 articles screened, 55 RCTs were included. Acupressure (n = 23), massage therapy (n = 17), reflexology (n = 6) and acupuncture (n = 5) were the most studied MBMs. Acupressure and reflexology were shown to reduce sleep disturbance and fatigue by 6.2-50.0% and 9.1-37.7% respectively. **For uremic pruritus, acupressure and acupuncture reduced symptoms by 34.5-77.7% and 56.5-60.2% respectively**. Common adverse reactions associated with acupressure included intradialytic hypotension (20.4%) and dizziness (11.1%) while that of acupuncture included elbow soreness (7.5%) and bleeding (7.5%). No adverse effects were reported for massage therapy, moxibustion, reflexology and yoga therapy.
Conclusion	Acupressure, reflexology and massage therapies were the most well-studied MBMs which have demonstrated efficacy in alleviating sleep disturbance, fatigue and uremic pruritus symptoms in CKD patients.

1.1.3. Teo 2022

Teo WY, Chu SWF, Chow LY, Yeam CT, Low LL, Quah JHM, Foo M, Seng JJB. Role of Alternative Medical Systems in Adult Chronic Kidney Disease Patients: A Systematic Review of Literature. Cureus. 2022 Dec 23;14(12):e32874. https://doi.org/10.7759/cureus.32874

Backgound	There is a growing interest in the use of alternative medical systems (AMS), such as traditional Chinese medicine (TCM), ayurveda, homeopathy, and naturopathy, among chronic kidney disease patients. This review summarizes the efficacy and safety of AMS interventions in chronic kidney disease (CKD) patients.
Methods	A systematic review was conducted in MEDLINE, Embase, Scopus, CINAHL, CENTRAL, and PsycINFO in line with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) and Synthesis without meta-analysis (SWiM) guidelines. Randomized controlled trials (RCTs) which evaluated the use of AMS among adult CKD patients were included. The efficacy of each AMS was assessed based on improvement in biochemical markers or reduction in symptom severity scores. All adverse reactions were recorded.
Results	Of the 14,583 articles retrieved, 33 RCTs were included. TCM (n=20) and ayurveda (n=6) were the most well-studied. Majority of studies (66.7%) had a sample size <100. Common indications evaluated included improvement in renal function (n=12), proteinuria (n=5), and uremic pruritus (n=5). Among TCM, acupuncture and syndromes-based TCM granules formulation were shown to improve estimated glomerular filtration rate (eGFR) by 5.1-15.5% and 7.07-8.12% respectively. Acupuncture reduced uremic pruritus symptoms by 54.7-60.2% while Huangkui, Shenqi granules, and Tripterygium wilfordii Hook F reduced proteinuria by 18.6-50.7%, 61.8%, and 32.1% respectively. For Ayurveda, camel milk and Nigella sativa oil improved eGFR by 16.9% and 86.8%, respectively, while capsaicin reduced pruritus scores by 84.3%. Homeopathic verum medication reduced pruritus scores by 29.2-41.5%. Nausea was the most common adverse effect reported with alpha-keto amino acids (0.07%), Nigella sativa oil (7.04%), and silymarin (10%).

Conclusion	TCM and ayurveda were more well-studied AMS therapies that demonstrated efficacy in CKD patients. RCTs with larger sample sizes are needed to ascertain the efficacy and safety of promising AMS.

1.1.4. Melo 2020

Melo GAA, Aguiar LL, Silva RA, Pereira FGF, Silva FLBD, Caetano JÁ. Effects of acupuncture in patients with chronic kidney disease: a systematic review. Rev Bras Enferm. 2020;73(4). [209644]. doi

Objectives	To analyze the effects of acupuncture techniques in patients with chronic kidney disease.
Methods	A systematic review conducted in six databases, from September to December 2017, following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses' criteria. The following descriptors were used: Acupuncture AND Chronic Renal Insufficiency AND Clinical Trial.
Results	**Nine studies** were selected; the acupuncture techniques used were auriculotherapy, electroacupuncture and acupressure aimed at improving quality of life, fatigue, sleep and clinical variables of the disease. The studies that assessed quality of life, sleep and fatigue presented significant benefits. Studies that assessed quality of life, sleep and fatigue presented significant benefits. There was no statistical significance in the improvement of serum creatinine levels and glomerular filtration rate. Methodological and assessment tools' divergence made impossible meta-analysis.
Conclusions	Studies reinforce the positive effect of acupuncture in improving quality of life, fatigue and sleep in patients.

1.1.5. Kim 2016

Kim KH, Lee MS, Kim TH, Kang JW, Choi TY, Lee JD. Acupuncture and related interventions for symptoms of chronic kidney disease. Cochrane Database Syst Rev. 2016. [186253].

Background	People living with chronic kidney disease (CKD) experience a range of symptoms and often have complex comorbidities. Many pharmacological interventions for people with CKD have known risks of adverse events. Acupuncture is widely used for symptom management in patients with chronic diseases and in other palliative care settings. However, the safety and efficacy of acupuncture for people with CKD remains largely unknown.
Objectives	We aimed to evaluate the benefits and harms of acupuncture, electro-acupuncture, acupressure, moxibustion and other acupuncture-related interventions (alone or combined with other acupuncture-related interventions) for symptoms of CKD. In particular, we planned to compare acupuncture and related interventions with conventional medicine, active non-pharmacological interventions, and routine care for symptoms of CKD.

Methods	Search methods: We searched the Cochrane Kidney and Transplant Specialised Register up to 28 January 2016 through contact with the Information Specialist using search terms relevant to this review. We also searched Korean medical databases (including Korean Studies Information, DBPIA, Korea Institute of Science and Technology Information, Research Information Centre for Health Database, KoreaMed, the National Assembly Library) and Chinese databases (including the China Academic Journal). Selection criteria: We included randomised controlled trials (RCTs) and quasi-RCTs that investigated the effects of acupuncture and related point-stimulation interventions with or without needle penetration that involved six sessions or more in adults with CKD stage 3 to 5, regardless of the language and type of publication. We excluded studies that used herbal medicine or co-interventions administered unequally among the study groups. Data collection and analysis: Two authors independently extracted data and assessed risk of bias. We calculated the mean difference (MD) or standardised mean difference (SMD) with 95% confidence intervals (CI) for continuous outcomes and risk ratio (RR) for dichotomous outcomes. Primary outcomes were changes in pain and depression, and occurrence of serious of adverse events.
Main results	We included 24 studies that involved a total of 1787 participants. Studies reported on various types of acupuncture and related interventions including manual acupuncture and acupressure, ear acupressure, transcutaneous electrical acupuncture point stimulation, far-infrared radiation on acupuncture points and indirect moxibustion. CKD stages included pre-dialysis stage 3 or 4 and end-stage kidney disease on either haemodialysis or peritoneal dialysis.None of the included studies assessed pain outcomes, nor formally addressed occurrence of serious adverse events, although three studies reported three participant deaths and three hospitalisations as reasons for attrition. Three studies reported minor acupuncture-related harms; the remainder did not report if those events occurred.All studies were assessed at high or unclear risk of bias in terms of allocation concealment. Seventeen studies reported outcomes measured for only two months.There was very low quality of evidence that compared with routine care, manual acupressure reduced scores of the Beck Depression Inventory score (scale from 0 to 63) (3 studies, 128 participants: MD -4.29, 95% CI -7.48 to -1.11, I(2) = 0%), the revised Piper Fatigue Scale (scale from 0 to 10) (3 studies, 128 participants: MD -1.19, 95% CI -1.77 to -0.60, I(2) = 0%), and the Pittsburgh Sleep Quality Index (scale from 0 to 21) (4 studies, 180 participants: MD -2.46, 95% CI -4.23 to -0.69, I(2) = 50%).We were unable to perform further meta-analyses because of the paucity of data and problems with clinical heterogeneity, such as different interventions, comparisons and timing of outcome measurements.
Authors' conclusions	There was very low quality of evidence of the short-term effects of manual acupressure as an adjuvant intervention for fatigue, depression, sleep disturbance and uraemic pruritus in patients undergoing regular haemodialysis. The paucity of evidence indicates that there is little evidence of the effects of other types of acupuncture for other outcomes, including pain, in patients with other stages of CKD. Overall high or unclear risk of bias distorts the validity of the reported benefit of acupuncture and makes the estimated effects uncertain. The incomplete reporting of acupuncture-related harm does not permit us to assess the safety of acupuncture and related interventions. Future studies should investigate the effects and safety of acupuncture for pain and other common symptoms in patients with CKD and those undergoing dialysis.

1.2. Special Acupuncture Techniques

1.2.1. Moxibustion

1.2.1.1. Zhou 2020

Zhou X, Wu Q, Wang Y, Ren Q, Zhu W, Yao Z, Chen J. Moxibustion as an Adjuvant Therapy for Chronic Kidney Disease: A Systematic Review and Meta-Analysis of 23 Randomized Controlled Trials. Evid Based Complement Alternat Med. 2020. [214007]. doi

Objective	This systematic review aims to investigate the efficacy and safety of moxibustion for chronic kidney disease (CKD).
Methods	Nine databases were searched to identify relevant evidence up to March 8, 2020. Randomized controlled trials (RCTs) that tested moxibustion + basic treatments versus basic treatments alone for patients with CKD and reported, at least, one of the outcomes of interest were included. In the meta-analyses, the mean differences (MDs) and 95% confidence intervals (CIs) were used to measure the effect size.
Results	**Twenty-three RCTs (n = 1571)** with a moderate to high risk of bias were included. The pooled estimates showed that compared with the controls, patients after moxibustion had a significant reduction in serum creatinine (MD -17.34 μmol/L, 95% CI -28.44 to -6.23; I 2 = 87%), 24-hour urine protein excretion (MD -0.75 g/h, 95% CI -1.07 to -0.42; I 2 = 84%), and blood urea nitrogen (MD -0.63 mmol/L, 95% CI -1.09 to -0.18; I 2 = 37%) and a significant improvement in the quality of life (MD 10.18, 95% CI 3.67 to 16.69; I 2 = 57%). Moxibustion did not show a significant effect on the estimated glomerular filtration rate (eGFR), creatinine clearance, or hemoglobin. The subgroup analyses showed that a longer course of moxibustion (>8 weeks) and indirect moxibustion had a greater effect on reducing serum creatinine. The effect of moxibustion on blood urea nitrogen changed to be nonsignificant after excluding RCTs with a high risk of bias (MD -0.96 mmol/L, 95% CI -2.96 to 1.03). Only one adverse event of burn was reported.
Conclusions	This systematic review suggests that, as an adjuvant therapy, moxibustion may improve serum creatinine, urinary protein excretion, blood urea nitrogen, and quality of life in patients with CKD. Moxibustion may not have effects on eGFR, creatinine clearance, or hemoglobin. The quality of evidence is weakened by the limitations of risk of bias, heterogeneity, and imprecision.

1.2.2. Acupoint injection

1.2.2.1. Yang 2020

Yang T, Zhao J, Guo Q, Wang Y, Si G. Acupoint injection treatment for non-dialysis dependent chronic kidney disease: A meta-analysis of randomized controlled trials. Medicine (Baltimore). 2020;99(51). [217077]. doi

Aim	To analyze the effects of acupoint injection in the treatment of non-dialysis dependent chronic kidney disease through a systematic review with meta-analysis.
Methods	This systematic review with meta-analysis was conducted following the recommendations of the declaration of PRISMA. Full-text literature of randomized controlled trial of acupoint injection therapy for non-dialysis chronic kidney disease was searched in PubMed, Embase, Cochrane Library, China National Knowledge Internet, the Chinese Scientific Journal Database, the Wanfang Database, China Biology Medicine database. The efficacy and safety of acupoint injection for non-dialysis chronic kidney disease were evaluated.

Results	**Seventeen studies** containing **1414 patients** met the criteria. The results shows that acupoint injection combined with basic treatment can significantly improve the levels of Ccr (WMD = 4.81; 95% CI:2.54 to 7.08) and Hb (WMD = 4.56; 95% CI:1.72 to 7.39), reduce the levels of BUN (WMD = -0.90; 95% CI: -1.26 to -0.54)and Scr (WMD = -7.66; 95% CI: -12.39 to -2.93), and improve the effective rate (OR = 3.12; 95% CI: 2.29 to 4.26).
Conclusion	Our current analysis showed that combined acupoint injection therapy can reduce the levels of BUN and Scr, and increase Ccr and Hb in non-dialysis CKD patients. However, the existing evidence is still insufficient due to the high risk of included trial bias, and future research needs to improve methodological quality.

1.3. Special Clinical Forms

1.3.1. Uremic Pruritus

See corresponding item

1.3.2. Diabetic Kidney Disease

Wu C, Li Y, Piao C, Wu J. Effectiveness of Acupuncture for Diabetic Nephropathy: A Systematic Review and Meta-Analysis of Randomized Controlled Trials. Iran J Public Health. 2024 Nov;53(11):2404-2418. https://doi.org/10.18502/ijph.v53i11.16942

Backgound	This systematic review and meta-analysis aimed to explore the effectiveness of acupuncture for patients with diabetic nephropathy (DN).
Methods	Nine online databases were searched: China National Knowledge Infrastructure, China Science and Technology Journal Database, Wanfang Data Knowledge Service Platform, Chinese BioMedical Literature Database, China Clinical Trial Centre, Embase, PubMed, the Cochrane Library, and Web of Science. The search period was from the establishment of the database to 1 September 2023. The quality of the literature was evaluated using the Cochrane Risk of Bias Assessment Tool, and the data were analyzed using STATA/MP17 and Review Manager 5.3 software.
Results	A total of 221 articles were identified, and **13 studies were included**. The total sample size was 899, including 452 and 447 cases in the experimental and control groups, respectively. The meta-analysis showed that acupuncture combined with modern medical treatment was effective in improving urinary albumin excretion rate, 24 h urinary microalbumin, serum creatinine, blood urea nitrogen, fasting plasma glucose, 2 h post-prandial plasma glucose, total cholesterol, high-density lipoprotein cholesterol, hypersensitive C-reactive protein, and interleukin-6 in patients with DN. Adverse events were reported in only one trial; therefore, this review cannot yet conclude on the safety of acupuncture intervention in DN.
Conclusion	The clinical efficacy of acupuncture combined with modern medicine in DN is superior to that of modern medicine alone. To better evaluate the efficacy and safety of acupuncture intervention for DN, more rigorously designed large-sample, multicentre, randomized controlled trials are needed to provide evidence support in the future.

1.3.2.1. Yu 2024

Yu Y, Hu G, Yang X, Yin Y, Tong K, Yu R. A strategic study of acupuncture for diabetic kidney disease based on meta-analysis and data mining. Front Endocrinol (Lausanne). 2024 Feb 26;15:1273265. https://doi.org/10.3389/fendo.2024.1273265. https://pubmed.ncbi.nlm.nih.gov/38469137; PMCID:

PMC10925656.|

Objective	The specific benefit and selection of acupoints in acupuncture for diabetic kidney disease (DKD) remains controversial. This study aims to explore the specific benefits and acupoints selection of acupuncture for DKD through meta-analysis and data mining.
Methods	Clinical trials of acupuncture for DKD were searched in eight common databases. Meta-analysis was used to evaluate its efficacy and safety, and data mining was used to explore its acupoints selection.
Results	Meta-analysis displayed that compared with the conventional drug group, the combined acupuncture group significantly increased the clinical effective rate (risk ratio [RR] 1.35, 95% confidence interval [CI] 1.20 to 1.51, P < 0.00001) and high-density lipoprotein cholesterol (mean difference [MD] 0.36, 95% CI 0.27 to 0.46, P < 0.00001), significantly reduced the urinary albumin (MD -0.39, 95% CI -0.42 to -0.36, P < 0.00001), urinary microalbumin (MD -32.63, 95% CI -42.47 to -22.79, P < 0.00001), urine β2-microglobulin (MD -0.45, 95% CI -0.66 to -0.24, P < 0.0001), serum creatinine (MD -15.36, 95% CI -21.69 to -9.03, P < 0.00001), glycated hemoglobin A1c (MD -0.69, 95% CI -1.18 to -0.19, P = 0.006), fasting blood glucose (MD -0.86, 95% CI -0.90 to -0.82, P < 0.00001), 2h postprandial plasma glucose (MD -0.87, 95% CI -0.92 to -0.82, P < 0.00001), total cholesterol (MD -1.23, 95% CI -2.05 to -0.40, P = 0.003), triglyceride (MD -0.69, 95% CI -1.23 to -0.15, P = 0.01), while adverse events were comparable. Data mining revealed that CV12, SP8, SP10, ST36, SP6, BL20, BL23, and SP9 were the core acupoints for DKD treated by acupuncture.
Conclusion	Acupuncture improved clinical symptoms, renal function indices such as uALB, umALB, uβ2-MG, and SCR, as well as blood glucose and blood lipid in patients with DKD, and has a favorable safety profile. CV12, SP8, SP10, ST36, SP6, BL20, BL23, and SP9 are the core acupoints for acupuncture in DKD, and this program is expected to become a supplementary treatment for DKD.

1.3.2.2. Zhao 2020

Zhao Qing. [Meta-analysis of acupuncture as an adjuvant treatment for diabetic kidney disease]. Modern Chinese Clinical Medicine. 2020. [212926].

Objective	To make a systematic evaluation of clinical efficacy of acupuncture as an adjuvant treatment for diabetic nephropathy.
Methods	Databases including PubMed, EMbase, BMJ, CNKI, Wang fang and VIP were searched. Two researchers independently screened the literature and extracted the data, and then evaluated the quality of the literature, and last performed a meta-analysis using RevMan 5. 3.
Results	A total of **8 trials involving 491 patients** were included. Compared with the single treatment group just as the Western medicine or the traditional Chinese medicine, acupuncture treatment reduced UAE[SMD=-2. 49, 95%CI-4. 11 to 0. 86, P=0. 003;I~2=97%;5 trials], Scr[MD=-15. 44, 95%CI-26. 55 to-4. 33, P=0. 006;I~2=90%;5 trials], BUN [MD=-1. 83, 95%CI-2. 97 to-0. 70, P=0. 002;I~2=93%;4 trials] and TG[MD=-0. 69, 95%CI-1. 23 to-0. 15, P=0. 01;I~2=87%;4 trials], and improved clinical total effective rate[OR=3. 89, 95%CI 2. 18 to 6. 93, P<0. 000 01;I~2=0%;7 trials].
Conclusions	The treatment of acupuncture has a favorable therapeutic efficacy for DKD. It can significantly reduce UAE and blood lipid and can improve renal function and effectiveness of clinical treatment of DKD. Importance should be attached to the acupoints of Shenshu (BL 23)

2. Clinical Practice Guidelines

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

2.1. U.S. Department of Veterans Affairs; U.S. Department of Defense (VA/DoD, USA 2025) ⊕ (Chronic Pain)

U.S. Department of Veterans Affairs; U.S. Department of Defense. VA/DoD clinical practice guideline for the primary care management of chronic kidney disease. Version 5.0 – 2025. Washington, DC: Department of Veterans Affairs and Department of Defense; 2025. https://www.healthquality.va.gov/guidelines/CD/ckd/CKD-CPG_2025-Guideline_final_20250509.pdf

Chronic pain management in patients with CKD : Consider **acupuncture** and chiropractic care if available and indicated

2.2. Kidney Health Australia (KHA, Australia) 2015 ⊕ (Chronic Pain)

Savige J, Tunnicliffe DJ, Gopala K. Rangan GK. KHA-CARI Autosomal Dominant Kidney Disease Guideline: Management of Chronic Pain. Seminars in Nephrology. 2015;35(6):607-611. [196849].

We recommend that patients be involved in the management of their pain, non-pharmacological treatments be emphasized in the first instance (1D) [Acupuncture].