Table des matières

dyslipidemia

Dyslipidémies

1. Systematic Reviews and Meta-Analysis

1.1. Generic Acupuncture

1.1.1. Liu 2024 (combined with statin)

Liu X, Chen K, Chen F. Clinical efficacy and safety of acupuncture combined with statin in dyslipidemia: A meta-analysis and system review. Medicine (Baltimore). 2024 Sep 13;103(37):e39663. https://doi.org/10.1097/MD.0000000000039663

Backgound	This study aims to systematically evaluate the clinical efficacy and safety of acupuncture in combination with statin therapy compared to statin monotherapy for the treatment of dyslipidemia.
Methods	A comprehensive search for relevant randomized controlled trials assessing the clinical efficacy of acupuncture and statin combination in the treatment of dyslipidemia was conducted. Databases including PubMed, EMbase, Web of Science, Cochrane Library, China National Knowledge Infrastructure, China Biology Medicine disc, Wanfang database, and China Science and Technology Journal Database were searched up to October 27, 2023.
Results	**Sixteen Chinese-language studies involving a total of 1333 subjects** were included for analysis. The meta-analysis revealed that the total effective rate of acupuncture combined with statin was significantly higher than that of statin alone (odds ratios = 3.32, 95% confidence intervals [CI] = 2.33 to 4.72). Furthermore, the combination of acupuncture with statin treatment resulted in a significant reduction in triglyceride levels (mean differences [MD] = -0.72 mmol/L, 95% CI = -1.05 to -0.4), total cholesterol levels (MD = -0.79 mmol/L, 95% CI = -1.07 to -0.51), low-density lipoprotein cholesterol levels (MD = -0.61 mmol/L, 95% CI = -0.95 to -0.27) and traditional Chinese medicine syndrome integral (MD = -1.32, 95% CI = -1.75 to -0.89), compared to statin treatment alone. Additionally, the high-density lipoprotein cholesterol level was higher in the combined acupuncture and statin treatment group than in the statin treatment alone group (MD = 0.44 mmol/L, 95% CI = 0.09 to 0.79). Notably, the rate of adverse reactions reported with combined acupuncture and statin treatment was lower than that with statin therapy alone.
Conclusion	Our findings support the potential of acupuncture combined with statin as a viable clinical treatment option for dyslipidemia. However, it is important to note that current research on the mechanism of acupuncture for lipid-lowering has not yielded definitive results, and there are inherent biases in the conducted clinical studies.

1.1.2. Xu 2022 (metabolic risk factors for stroke)

Xu Y, Zhong DY, Liao XQ, Wang XP, Ge JW, Xu WH. Acupuncture against the metabolic risk factors for stroke: A systematic review of systematic reviews. Medicine (Baltimore). 2022 Sep 2;101(35):e30086.

https://doi.org/10.1097/MD.0000000000030086.

Objective	This systematic review (SR) of SRs aims aimed to evaluate the current evidence of rehabilitation interventions in stroke patients after acupuncture treatment.
Methods	Full-text SRs published in Chinese and English up to December 15, 2021 were searched in PubMed, Embase, Cochrane Library, CNKI, VIP, and Wanfang databases. The PRISMA statement and the assessment of multiple systematic reviews 2 (AMSTAR 2) scale were used to evaluate the quality of the included articles. The Grading of Recommendations, Assessment, Development and Evaluation (GRADE) system was employed to assess the outcome indicators for evidence quality evaluation.
Results	A number of **42 publications** were identified in this study. According to these articles, 4 metabolic areas were identified: systolic blood pressure, weight loss, glycemic index and cholesterol. The acupuncture is beneficial to improve the systolic blood pressure of patients, and the effect of acupuncture on diastolic blood pressure is better than that of sham acupuncture. The weight loss effect of acupuncture is better than that of lifestyle and western medicine. The improvement effect of acupuncture on body mass index (BMI) is also better than that of sham acupuncture. In the study of glycemic index of stroke patients, acupuncture significantly improved glycosylated hemoglobin and insulin sensitivity index compared with western medicine. In cholesterol-related research, acupuncture can effectively improve the content of triglycerides. However, studies on HDL and LDL show that acupuncture can significantly improve HDL, but has no significant effect on LDL.
Conclusion	This review summarizes the available evidence and underpins findings of the acupuncture exhibited the therapeutic role in eliminating metabolic risk factors for stroke, including systolic blood pressure, weight loss, glycemic index and cholesterol. **Acupuncture could have positive effects on a specific symptom**, and the effects depend not only on intervention type but also on how and when the intervention is provided. And more prioritizing high-quality research in this field in the future is conducive to guiding clinical practice.

1.1.3. Liu 2015 ☆

Liu Mailan, Zhang Guoshan, Li Chengwen, Wang Houlian, Guo Anlin, Liu Mi, Chang Xiaorong. [Effectiveness and safety of acupuncture and moxibustion for hyperlipidemia: a systematic review]. Liaoning Journal of Traditional Chinese Medicine. 2015;11:2065-207. [187041].

Objectives	To systematically assess the effectiveness and safety of acupuncture and moxibustion for the treatment of hyperlipidemia.
Methods	Databases including CBM, CNKI, VIP and Wanfang were electronically searched from inception to Apr. 2014 for the randomized controlled trials (RCTs) on acupuncture and moxibustion (manual acupuncture, electroacupuncture, He-Ne laser acupoint needling method) versus drugs (pravastatin, simvastatin, lovastatin fenofibrate) for hyperlipidemia. Two reviewers independently screened literature according to the inclusion and exclusion criteria, extracted data and assessed the methodological quality of the included. The third researcher checked the results and ruled the literature which the two reviewers had different comments on. And then, the Meta-analysis was performed using Rev Man 5. 2 software.

Results	In total, **9 RCTs and 733 patient**s were included. The results of Meta- analysis indicated: (1) Acupuncture and moxibustion group' s effects on decreasing LDL- C was better than that of the drugs group [MD = 1. 05, 95% CI (0. 86, 1. 25), P < 0. 00001]. (2) Drugs group's effects on decreasing TC was better than that of the acupuncture and moxibustion group [MD =- 0. 31, 95% CI (- 0. 46, - 0. 15), P < 0. 0001]. (3) Acupuncture and moxibustion group' s effects on decreasing TG was better than that of the drugs group [MD = 0. 62, 95% CI (0. 45, 0. 79), P < 0. 00001]. (4) Acupuncture and moxibustion group's effects on decreasing HDL- C was better than that of the drugs group [MD = 0. 62, 95% CI (0. 45, 0. 79), P < 0. 00001]. (5) Acupuncture and moxibustion and drugs groups were both effective for hyperlipidemia and there was no significant difference between two groups [OR = 1. 26, 95% CI (0. 90, 1. 77), P =0. 18].
Conclusions	Based on current clinical evidence, for hyperlipidemia, the **effectiveness of acupuncture and moxibustion was better than the drugs**, except the decreasing of TC value. And the safety of acupuncture and moxibustion was better than the drugs'.

1.2. Special Acupuncture Techniques

1.2.1. Fenglong acupoint (ST40)

1.2.1.1. Zhang 2014 ☆

Zhang Bao-Zhen, Zhang Kai, Liu Yu-Zhen. [Meta-analysis on RCTs of acupuncture and moxibustion at fenglong point for treatment of hyperlipemia]. Chinese Journal of Information on Traditional Chinese Medicine. 2014;8:11-15. [186946].

Objectives	To systematically review the efficacy and safety of acupuncture and moxibustion at Fenglong point (ST40) for the treatment of hyperlipemia.
Methods	Systematic searches were conducted in PubMed, Embase, the Cochrane Library, CNKI, VIP, CBM and WanFang Data, assisted by manual retrieval, and the RCTs of comparative study on acupuncture and moxibustion at Fenglong point and oral administration drugs were included. Data were extracted and evaluated by two reviewers independently with a specially-designed extraction form. The Cochrane Collaboration's RevMan 5. 0 software was used for Meta-analysis.
Results	A total of **6 RCTs involving 701 patients** were included. The results of Meta-analysis showed that the total effective rate in acupuncture and moxibustion at Fenglong point for the treatment of hyperlipemia was similar with statins medicine or Xuezhikang capsule. Acupuncture Fenglong point and statins medicine had significant difference in decreasing cholesterol and increasing HDL-C, with less side effects.
Conclusions	**Acupuncture at Fenglong point is safe and effective in the treatment of hyperlipemia**, but still needs more high-quality RCTs for confirmation.

1.2.2. Auricular acupuncture

1.2.2.1. Li 2017

Li Huan, Li Guiping. [Randomized controlled trials of auricular point for hyperlipidemia: A Meta-analysis]. Hebei Journal of Traditional Chinese Medicine. 2017;10. [51991].

Objective	To systematically assess the clinical effects of auricular point on the treatment of hyperlipidemia.

Methods	We electronically searched databases including CNKI, VIP, Wan Fang Data, Pub Med, Web of Science, Embase, MEDIINE (Ovid), and Cochrane Library to collect randomized controlled trials (RCT) of auricular point for hyperlipidemia from inception to December 31, 2016. Two reviewers independently screened literature, extracted data and assessed the risk of bias of included studies. Then, meta-analysis was performed by using Rev Man 5. 3 software.
Results	A total of 9 literatures and 1115 patients were included. The Results of Meta-analysis indicated: in terms of the total effective rate, the auricular needle combined with Chinese and western medicine, and simple Chinese and western medicine have similar effects on lipid-lowering. The lipid-lowering effect of auricular point combined with changing the lifestyle is better than simply changing the lifestyle. Auricular point and western medicine have similar effects on lipid-lowering. The lipid-lowering effect of auricular point combined with body acupuncture is superior to the simply body acupuncture.
Conclusion	Auricularia point has a certain efficacy and relatively safe on lipid-lowering. However, due to the limited number of trials and the low quality of the literature, a more rigorous randomized controlled trial is needed to further validate the above Conclusions.

1.2.3. Catgut Embedding

1.2.3.1. Yin 2024

Yin N, Wu X, Ren R, Luo J. The effect of acupoint catgut embedding and drug therapy on hyperlipidemia: a meta-analysis of randomized controlled trials. Biotechnol Genet Eng Rev. 2024 Apr;40(1):664-677. https://doi.org/10.1080/02648725.2023.2186559

Background	There is no consensus on whether acupoint catgut embedding should be widely used as a treatment for hyperlipidemia. Acupoint catgut embedding is also not included in the guidelines for the treatment of hyperlipidemia.
Methods	The purpose of this study was of two aspects: 1) to review recent research advances in the relationship between acupoint catgut embedding and hyperlipidemia, 2) to make a meta-analysis of the effects of acupoint catgut embedding on hyperlipidemia. We conducted a meta-analysis of studies extracted from PubMed, the Cochrane Library, Embase CNKI, Wanfang Data and VIP to identify randomized controlled trials (RCTs) evaluating the efficacy of acupoint catgut embedding on hyperlipidemia evaluated through screening, inclusion, data extraction and quality assessment. We performed a meta-analysis using Review Manager 5.3 software.
Results	A total of **9 RCTs, involving more than 500 adults** over 18 years old, were included. Compared with acupoint catgut embedding, drugs resulted in TC [MD = -0.08, 95% CI (-0.20, 0.05), p = 0.41, I2 = 2%], in TG [MD =-0.04, 95% CI (-0.20, 0.11), p = 0.09, I2 = 43%], in HDL-C [MD = 0.02, 95% CI (-0.12, 0.16), p = 0.07, I2 = 50%], in LDL-C [MD = 0.16, 95% CI (0.02, 0.29), p = 0.17, I2 = 34%]. Based on the current evidence, acupoint catgut embedding is not significantly more effective than drugs in reducing hyperlipidemia. More randomized trials are needed to confirm this conclusion.

1.2.3.2. Yi 2021

Yi Lizhen, Wu Xuefen, Liu Xin, Yue Zenghui. [Clinical Efficacy of Acupoint Catgut Embedding in Treating Hyperlipidemia: A Meta - Analysis]. Journal of Clinical Acupuncture and Moxibustion. 2021;37(2):55. [216744].

Objective	To evaluate the clinical efficacy and safety of acupoint catgut embedding in the treatment of hyperlipidemia (HLP).
Methods	Databases of Pubmed, Cochrane Library, EMbase, CNKI, WanFang Data, VIP and CBM were searched to collect randomized controlled trials (RCTs) on the treatment of HLP by acupoint catgut embedding in recent 10 years. RevMan5. 3 and STATA 14. 0 software were used for meta - analysis.
Results	A total of 14 RCTs were included with a total of 961 HLP cases. Meta - analysis showed that the tota1 effective rate of the treatment group was significantly higher than that of the control group [OR = 1. 88, 95% CI (1. 32,2. 66), Z =3. 54,P =0. 000 4J. The occurrence of adverse events of acupoint catgut embedding therapy was lower than that of oral western medication [OR = 0. 44, 95 % CI (0. 22, 0. 90), Z = 2. 24, P = 0. 03].
Conclusion	Acupoint catgut embedding has certain advantages in treating HLP, which is worthy of clinical application. But due to the low quality of the included literature, it needs higher quality evidence to verify the study.

1.2.4. Moxibustion

1.2.4.1. Jareebi 2026

Jareebi MA, Humedi A, Darraj A, Alsyrawan J, Bamanie A, Alghamdi S, Marzuqi A, Al-Matrafi M, Alharbi D, Barnawi A, Abu Halimah J, Majrashi AH, Alsriha AS, Alselmi AA, Alneel GA. Evaluating the Effectiveness of Moxibustion in Hyperlipidemia: A Systematic Review and Meta-Analysis. Med Princ Pract. 2026;35(2):126-143. https://doi.org/10.1159/000548187

Objective	Our systematic review aimed to evaluate the safety and efficacy of moxibustion (MXB) therapy for hyperlipidemia (HLP) by analyzing pre- and post-treatment outcomes.
Methods	This meta-analysis of randomized controlled trials evaluated MXB therapy's effects on adult HLP patients, assessing pre- and post-treatment fasting blood sugar (FBS), apolipoprotein A-I (Apo A-I), apolipoprotein B (Apo B), and lipid profiles including total cholesterol (TC), triglycerides (TG), low-density lipoprotein (LDL), and high-density lipoprotein (HDL), using a random-effects model. Results showed significant changes in these parameters, indicating MXB's potential efficacy in improving lipid metabolism and related markers.
Results	The analysis includes **6 studies comprising 228 HLP patients** (males: 25.43%, females: 51.75%, unknown: 22.8%). Result showed significant difference in TC (OR = 0.69 [0.13, 1.24], p = 0.02), LDL (OR = 0.42 [0.22, 0.63], p = 0.00), Apo B (OR = 0.33 [0.06, 0.60], p = 0.02), FBS (OR = 0.38 [0.05, 0.71], p = 0.02), and TG (OR = 0.35 [0.16, 0.54], p = 0.00) values in post-treatment group compared to pretreatment group. However, no significant changes was analyzed in values of HDL (OR = -0.16 [-0.38, 0.06], p = 0.16) and Apo A-I (OR = 0.01 [-0.26, 0.28], p = 0.96).
Conclusion	Statistical analysis showed a positive correlation between MXB therapy and HLP. This supports the clinical application of MXB for HLP treatment. However, further high-quality studies with optimal doses in high-risk population and comprehensive safety reporting would enhance clinical applicability.

2. Overviews of Systematic Reviews

2.1. Chen 2015 Ø

Chen Hao, Wang Yan, Hu Xuan-Ming, Xu Wen-Tao, Gu Yi-Huang. [Acupuncture therapies for intervening dyslipidemia: a summary overview on systematic reviews and Meta-analysis]. Chinese Journal of Evidence-Based Cardiovascular Medicine. 2015;(4):435-8. [165673].

Objective	To conduct a summary overview on systematic reviews and Meta-analysis of acupuncture therapies for intervening dyslipidemia.
Methods	The databases of Pub Med, Embase, Cochrane Library, CBM, CNKI and Wan Fang Database were retrieved for searching the studies on systematic reviews and Meta-analysis of acupuncture therapies for intervening dyslipidemia. The methodological quality of included studies was reviewed by using AMSTAR tools, and grades of evidence were reviewed by using GARDE system.
Results	There was finally **only 1 eligible study** included, which compared acupuncture therapy and medication therapy. The results of AMSTAR tools (totally 11 items) showed that in item 1, the study did not provide registration information and study proposal. In item 2, the study did not give reviewers' information although it introduced there were 2 reviewers for separated reviewing. In item 10 and item 11, the study did not review publication bias and explain relevant interest conflicts during reviewing procedure. In other 7 items, the study described well. The quality grade reviewing of GRADE system showed that the quality of evidence was reduced due to risk of bias, inconsistency, indirection, precision and publication bias. The quality of evidence was at very low grade because risk of bias, inconsistency and publication bias after reviewing 10 outcome indicators focused by the study.
Conclusion	The quantity of systematic reviews of acupuncture therapy for dyslipidemia are smaller now, methodological quality is lower, and grade of evidence is very low, so the therapy should be applied cautiously in clinic practice.